



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 10/043086

**TO:** Emily M Le  
**Location:** 3c35/3c18  
**Art Unit:** 1648  
**Friday, August 05, 2005**

**Case Serial Number:** 10/043086

**From:** Noble Jarrell  
**Location:** Biotech-Chem Library  
**Rem 1B71**  
**Phone:** 272-2556

**Noble.jarrell@uspto.gov**

### Search Notes

Checked 8/08/05  
w/ prior art found.

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Scientific and Technical Information Center  
SEARCH REQUEST FORM

Requester's Full Name: \_\_\_\_\_ Examiner #: 79936 Date: 7/13/05

Art Unit: \_\_\_\_\_ Phone Number: 2- Serial Number: 101043083

Location (Bldg/Room#): \_\_\_\_\_ (Mailbox #): \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK

\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Date: \_\_\_\_\_

Search Topic:

*Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.*

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

\*\*\*\*\*

STAFF USE ONLY

Searcher: noble

Type of Search

Vendors and cost where applicable

Searcher Phone #: \_\_\_\_\_

NA Sequence (#)

STN  Dialog

Searcher Location: 13

Structure (#)

Questel/Orbit  Lexis/Nexis

Date Searcher Picked Up: \_\_\_\_\_

Bibliographic

In-house sequence systems

Date Completed: 8/5/05

Litigation

Commercial  Oligomer  Score/Length

Searcher Prep & Review Time: 33

Fulltext

Interference  SPDI  Encode/Transl

Online Time: 39

Other

Other (specify)

**Jarrell, Noble**

**From:** Le, Emily  
**Sent:** Tuesday, July 12, 2005 4:35 PM  
**To:** Jarrell, Noble  
**Cc:** Housel, James  
**Subject:** Structure and registry search: 10/043086

Noble,

Please provide a search for the attached structures (1 generic and 11 specific structures).

Thanks!

Emily Le  
Office, Rem 3C35  
Mailbox, Rem 3C18  
Tel., 2-0903

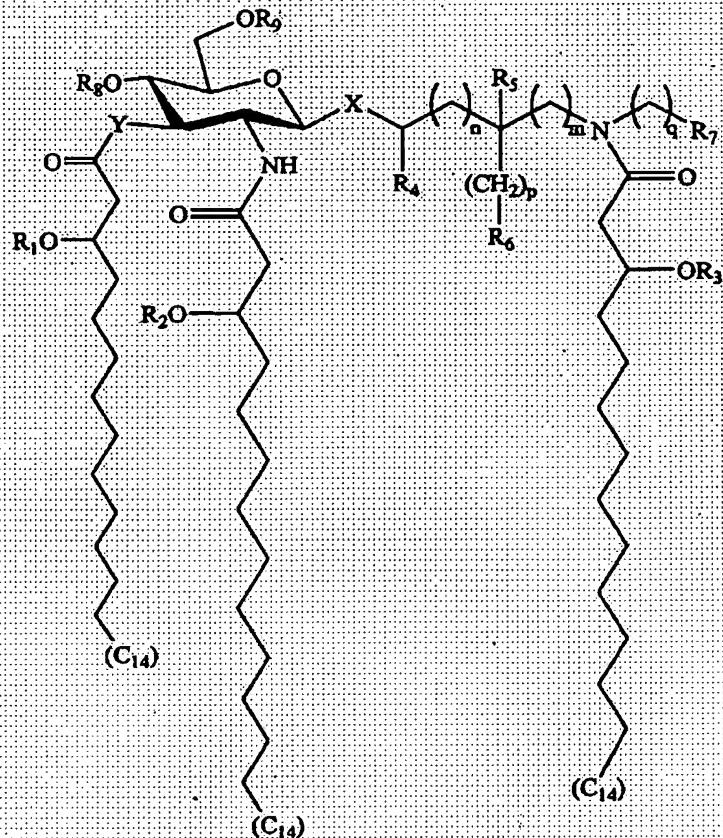
Sequence Search:



10043086.doc

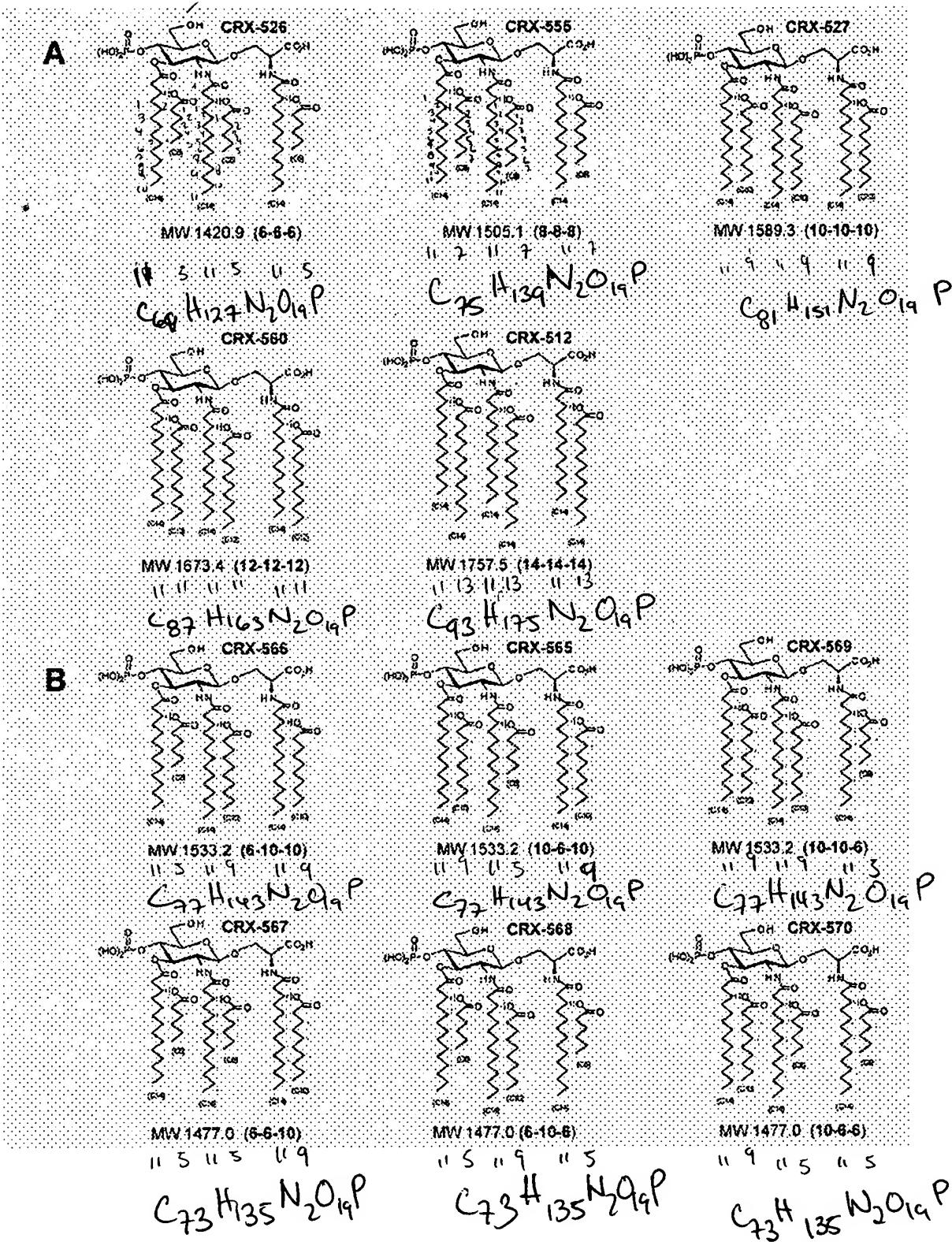
I.

49. (currently amended) A compound having the formula



wherein X is O; Y is O; m, n, p and q are each 0; R<sub>4</sub>, R<sub>5</sub>, R<sub>7</sub> and R<sub>9</sub> are each H; R<sub>8</sub> is phosphono; R<sub>6</sub> is selected from OH, CO<sub>2</sub>H and CONH<sub>2</sub>; and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are independently selected from C<sub>6</sub> acyl groups and C<sub>10</sub> acyl groups; and or a pharmaceutically acceptable salt(s) thereof.

II.



=> d his full

(FILE 'HOME' ENTERED AT 06:39:27 ON 05 AUG 2005)

FILE 'HCAPLUS' ENTERED AT 06:39:34 ON 05 AUG 2005  
 L1 6 SEA ABB=ON PLU=ON (US2003092643 OR US6764840 OR US2002048588  
     OR US6303347 OR US6113918)/PN

FILE 'REGISTRY' ENTERED AT 06:41:28 ON 05 AUG 2005

FILE 'HCAPLUS' ENTERED AT 06:41:30 ON 05 AUG 2005  
 L2 TRA L1 1- RN : 313 TERMS

FILE 'REGISTRY' ENTERED AT 06:41:31 ON 05 AUG 2005  
 L3 313 SEA ABB=ON PLU=ON L2

FILE 'WPIX' ENTERED AT 06:41:39 ON 05 AUG 2005  
 L4 4 SEA ABB=ON PLU=ON (US2003092643 OR US6764840 OR US2002048588  
     OR US6303347 OR US6113918)/PN

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 FILE LAST UPDATED: 4 Aug 2005 (20050804/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all 11

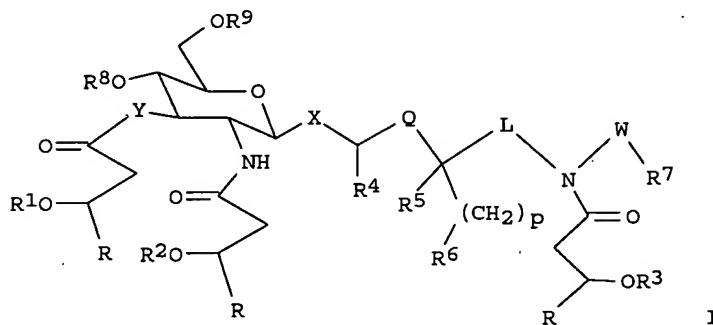
L1 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:836578 HCAPLUS  
 DN 139:307973  
 ED Entered STN: 24 Oct 2003  
 TI Preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors  
 IN Johnson, David A.; Sowell, C. Gregory  
 PA Corixa Corporation, USA  
 SO U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 43,086.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC A61K031-739; C08B037-00  
 INCL 514042000; 536053000  
 CC 33-7 (Carbohydrates)  
 Section cross-reference(s): 1, 15, 34, 63  
 FAN.CNT 10  
 PATENT NO.                   KIND           DATE                   APPLICATION NO.           DATE

PI	US 2003199460	A1	20031023	US 2002-137730	20020430
	US 6113918	A	20000905	US 1997-853826	19970508 <--
	US 6303347	B1	20011016	US 1999-439839	19991112 <--
	US 2002048588	A1	20020425	US 2001-905160	20010712 <--
	US 6764840	B2	20040720		
	US 2003092643	A1	20030515	US 2002-43086	20020108 <--
PRAI	US 1997-853826	A2	19970508		
	US 1999-439839	A1	19991112		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
	US 2003199460	IC	A61K031-739IC C08B037-00	
		INCL	514042000; 536053000	
	US 2003199460	NCL	514/042.000; 536/053.000	
		ECLA	C07H013/06C; C07H015/04D	
	US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000;	
			536/119.000	
		ECLA	C07H015/04D	<--
	US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400;	
			536/117.000; 536/119.000	
		ECLA	C07H015/04D	<--
	US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110	
		ECLA	C07H015/04D	<--
	US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100	
		ECLA	C07H013/06C; C07H015/04D	<--

OS MARPAT 139:307973  
GI



AB Aminoalkyl glucosaminide compds. (AGP) I were prepared wherein, X is selected from the group consisting of O and S at the axial or equatorial position; Y is selected from the group consisting of O and NH; Q is  $(CH_2)_n$ ; L is  $(CH_2)_m$ ; W is  $(CH_2)_q$ ; n, m, p, q are integers from 0 to 6; R is  $(CH_2)_{10}Me$ ; R1-R3 are the same or different and are normal fatty acyl residues having from 1 to about 20 carbon atoms and where one of R1-R3 is optionally hydrogen; R4 and R5 are the same or different and are selected from the group consisting of H and methyl; R6 and R7 are the same or different and are selected from the group consisting of H, hydroxy, alkoxy, phosphono, phosphono-oxy, sulfo, sulfo-oxy, amino, mercapto, cyano, nitro, formyl and carboxy, and esters and amides thereof; and R8 and R9 are the same or different and are selected from the group consisting of phosphono and H, and at least one of R8 and R9 is phosphono, that are adjuvants and immuno-effectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as

well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immuno-effectors are also disclosed. Thus, N-[(R)-3-hydroxytetradecanoyl]-O-[2-deoxy-4-O-phosphono-2-[(R)-3-dodecanoyloxytetradecanoylamino]-3-O-[(R)-3-tetradecanoyloxytetradecanoyl]- $\alpha$ -L-D-glucopyranosyl]-L-serine triethylammonium salt was prepared and tested in mice as adjuvants and immuno-effectors. Mice vaccinated with formalin-inactivated influenza and the AGP compds. of the subject invention mounted a protective immune response to an influenza challenge as well as produced antibody to that antigen.

ST antiinfluenza IgG immunoeffector aminoalkyl glucosaminide phosphate prep; cytokine adjuvant immunoeffector antitetanus toxoid amino acid prep glycoside; aminoalkyl glucosaminide phosphate prep adjuvant immunoeffector antitetanus toxoid antibody

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG, immobilized; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG1; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG2a; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG2b; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunostimulants  
(adjuvants; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Influenza  
(anti; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Macrophage  
Vaccines  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antigens  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Amino acids, preparation  
Antibodies and Immunoglobulins  
Cytokines  
Glycosides  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Toxoids  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(tetanus; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P 216013-82-0P  
216013-88-6P 216013-97-7P 216014-06-1P 216014-15-2P 216014-21-0P  
216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P 216014-56-1P  
216014-63-0P 216014-69-6P 216014-76-5P 216014-82-3P 216014-88-9P  
216014-92-5P 216014-98-1P 339078-59-0P 339078-61-4P 339078-63-6P

339078-65-8P 339078-67-0P 339078-69-2P 339078-71-6P 339078-73-8P  
 339078-75-0P 339078-77-2P 339078-79-4P 339078-81-8P 339078-85-2P  
 339079-17-3P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)  
 (preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 66-84-2 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 2456-81-7, 4-Pyrrolidinopyridine 2528-61-2, Heptanoyl chloride 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide methiodide 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl chloroformate 66937-71-1 109977-90-4 122078-72-2 133099-79-3, D-Serine benzyl ester 134304-48-6 166193-98-2 190586-91-5 216014-70-9 339078-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 1738-72-3P 2524-64-3P, Diphenyl chlorophosphate 76062-98-1P  
 87357-76-4P 91578-89-1P 91681-56-0P 122105-45-7P 122210-01-9P  
 186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-12-6P 216013-13-7P 216013-14-8P 216013-15-9P  
 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P 216013-26-2P  
 216013-27-3P 216013-28-4P 216013-29-5P 216013-30-8P 216013-31-9P  
 216013-32-0P 216013-35-3P 216013-36-4P 216013-37-5P 216013-38-6P  
 216013-42-2P 216013-43-3P 216013-44-4P 216013-45-5P 216013-53-5P  
 216013-54-6P 216013-55-7P 216013-56-8P 216013-60-4P 216013-61-5P  
 216013-62-6P 216013-63-7P 216013-66-0P 216013-67-1P 216013-69-3P  
 216013-70-6P 216013-71-7P 216013-75-1P 216013-77-3P 216013-78-4P  
 216013-79-5P 216013-80-8P 216013-83-1P 216013-85-3P 216013-89-7P  
 216013-90-0P 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P  
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 216014-34-5P 216014-35-6P 216014-38-9P 216014-39-0P 216014-40-3P  
 216014-41-4P 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P  
 216014-52-7P 216014-53-8P 216014-54-9P 216014-57-2P 216014-59-4P  
 216014-60-7P 216014-61-8P 216014-65-2P 216014-66-3P 216014-67-4P  
 216014-72-1P 216014-73-2P 216014-74-3P 216014-77-6P 216014-78-7P  
 216014-80-1P 216014-83-4P 216014-84-5P 216014-85-6P 216014-89-0P  
 216014-90-3P 216014-93-6P 216014-94-7P 216014-95-8P 216014-99-2P  
 216015-00-8P 216015-01-9P 220048-54-4P 339078-53-4P 339078-54-5P  
 339078-58-9P 339078-82-9P 339078-83-0P 339078-86-3P 339078-87-4P  
 339079-15-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

=> d all 11 2-6

L1 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:376382 HCAPLUS

DN 138:384134

ED Entered STN: 16 May 2003

TI Vaccine compositions comprising aminoalkyl glucosaminide phosphate compounds as adjuvants and immunoeffectors for treating cancerous and infectious diseases

IN Johnson, David A.; Sowell, C. Gregory  
PA Corixa Corporation, USA

SO U.S. Pat. Appl. Publ., 60 pp., Cont.-in-part of U.S. Ser. No. 905,160.  
CODEN: USXXCO

DT Patent

LA English

IC ICM A61K039-02  
ICS A61K031-739; C07H005-04  
INCL 514042000; 536053000; 536054000; 424234100

CC 15-2 (Immunochemistry)

Section cross-reference(s): 1, 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003092643	A1	20030515	US 2002-43086	20020108 <--
	US 6113918	A	20000905	US 1997-853826	19970508 <--
	US 6303347	B1	20011016	US 1999-439839	19991112 <--
	US 2002048588	A1	20020425	US 2001-905160	20010712 <--
	US 6764840	B2	20040720		
	US 2003199460	A1	20031023	US 2002-137730	20020430
PRAI	US 1997-853826	A2	19970508		
	US 1999-439839	A1	19991112		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003092643	ICM	A61K039-02
		ICS	A61K031-739; C07H005-04
		INCL	514042000; 536053000; 536054000; 424234100
	US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100
		ECLA	C07H013/06C; C07H015/04D
	US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
		ECLA	C07H015/04D
	US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
		ECLA	C07H015/04D
	US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110
		ECLA	C07H015/04D
	US 2003199460	NCL	514/042.000; 536/053.000
		ECLA	C07H013/06C; C07H015/04D

OS MARPAT 138:384134

AB Aminoalkyl glucosaminide phosphate (AGP) compds. that are adjuvants and immunoeffectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3- alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Compns. and methods for using the compds. as adjuvants and immunoeffectors are also disclosed.

ST vaccine antigen tumor protein immune adjuvant aminoalkyl glucosaminide phosphate; cancer infection antigen vaccine immune adjuvant aminoalkyl glucosaminide phosphate

IT Macrophage  
(activation; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Immunostimulants  
(adjuvants; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Functional groups

(aminoalkyl phosphate; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Blood serum  
Mucous membrane  
(antibody production; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(aqueous; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(carriers; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Immunity  
(cell-mediated; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT T cell (lymphocyte)  
(cytotoxic; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Glycosides  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(group; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antigens  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hepatitis B surface; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Solutions  
(isotonic, agent; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Oils  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(metabolizable; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(nasal, intra-; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Cytokines  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(production; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(solns.; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Toxoids  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(tetanus; vaccine compns. comprising aminoalkyl glucosaminide phosphate

compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Vaccines  
(tumor; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Animal  
Antioxidants  
Egg, poultry  
Emulsions  
Human  
Immunomodulators  
Immunostimulants  
Infection  
Influenza virus  
Mammalia  
Microparticles  
Microspheres  
Surfactants  
Vaccines  
(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antibodies and Immunoglobulins  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Ovalbumin  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antigens  
Polynucleotides  
Tumor antigens  
Tumor antigens  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Phosphatidylcholines, biological studies  
Phosphatidylethanolamines, biological studies  
Sphingomyelins  
Sphingosines  
Tocopherols  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antitumor agents  
(vaccines; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Infection  
(viral; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 125978-95-2P, Nitric oxide synthetase  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(inducible; vaccine compns. comprising aminoalkyl glucosaminide

phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 10102-43-9P, Nitric oxide, biological studies  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 66-84-2 76-05-1, Trifluoroacetic acid, reactions 99-73-0.  
 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0,  
 Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl chloride 6791-49-7, L-Serinamide 15219-34-8,  
 Oxalyl bromide 16357-59-8, 2-Ethoxy-1-ethoxycarbonyl-1,2-dihydroquinoline 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide methiodide 28715-21-1  
 58577-87-0 58577-88-1 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl chloroformate 66937-71-1, N-(2-Hydroxyethyl)glycine tert-butyl ester 105464-42-4 109977-90-4 122078-72-2 133099-79-3 134304-48-6  
 142982-11-4 166193-98-2 216014-70-9 216014-83-4 252042-31-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
 186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-11-5P 216013-12-6P 216013-13-7P 216013-14-8P  
 216013-16-0P 216013-20-6P 216013-22-8P 216013-26-2P 216013-27-3P  
 216013-28-4P 216013-29-5P 216013-30-8P 216013-31-9P 216013-35-3P  
 216013-36-4P 216013-37-5P 216013-42-2P 216013-43-3P 216013-44-4P  
 216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
 216013-60-4P 216013-61-5P 216013-62-6P 216013-66-0P 216013-67-1P  
 216013-69-3P 216013-71-7P 216013-77-3P 216013-78-4P 216013-80-8P  
 216013-83-1P 216013-85-3P 216013-89-7P 216013-90-0P 216013-91-1P  
 216013-92-2P 216013-93-3P 216013-98-8P 216013-99-9P 216014-00-5P  
 216014-01-6P 216014-02-7P 216014-07-2P 216014-08-3P 216014-09-4P  
 216014-11-8P 216014-12-9P 216014-17-4P 216014-22-1P 216014-23-2P  
 216014-24-3P 216014-25-4P 216014-26-5P 216014-30-1P 216014-31-2P  
 216014-32-3P 216014-33-4P 216014-34-5P 216014-38-9P 216014-40-3P  
 216014-41-4P 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P  
 216014-52-7P 216014-53-8P 216014-57-2P 216014-59-4P 216014-60-7P  
 216014-65-2P 216014-66-3P 216014-72-1P 216014-73-2P 216014-77-6P  
 216014-80-1P 216014-84-5P 216014-85-6P 216014-89-0P 216014-90-3P  
 216014-93-6P 216014-94-7P 216014-99-2P 216015-00-8P 339078-53-4P  
 339078-54-5P 367273-92-5P 525604-08-4P 525604-09-5P 525604-12-0P  
 525604-15-3P 525604-20-0P 525604-23-3P 525604-28-8P 525604-32-4P  
 525604-35-7P 525604-38-0P 525604-41-5P 525604-44-8P 525604-47-1P  
 525604-50-6P 525604-53-9P 525604-56-2P 525604-59-5P 525604-62-0P  
 525604-65-3P 525604-68-6P 525604-76-6P 525604-79-9P 525604-81-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 216013-09-1P 216013-19-3P 216013-47-7P 216013-65-9P 216013-73-9P  
 216014-37-8P 216014-98-1P 339078-67-0P 339078-71-6P 339078-75-0P  
 339078-77-2P 339079-17-3P 367273-94-7P 525604-11-9P 525604-14-2P  
 525604-17-5P 525604-19-7P 525604-22-2P 525604-34-6P 525604-37-9P  
 525604-40-4P 525604-43-7P 525604-46-0P 525604-49-3P 525604-52-8P  
 525604-55-1P 525604-58-4P 525604-61-9P 525604-64-2P 525604-67-5P  
 525604-70-0P 525604-72-2P 525604-74-4P 525604-78-8P 525604-83-5P  
 525604-85-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);

## USES (Uses)

(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 3416-24-8DP, 2-Deoxy-2-amino-glucose, aminoalkyl phosphate derivs.  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 56-81-5, Glycerol, biological studies 63-89-8 83-44-3 102-71-6, Triethanolamine, biological studies 111-02-4, Squalene 121-44-8, Triethylamine, biological studies 360-65-6 998-07-2, 1,2-Dimyristoyl-sn-glycero-3-phosphoethanolamine 1305-62-0, Calcium hydroxide, biological studies 7732-18-5, Water, biological studies 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological studies 106392-12-5, PLURONIC F 68  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 525604-07-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (vaccine compns. comprising m p 43aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

L1 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:182118 HCAPLUS

DN 136:217004

ED Entered STN: 14 Mar 2002

TI Preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors

IN Johnson, David A.; Sowell, C. Gregory

PA Corixa Corporation, USA

SO U.S., 37 pp., Cont.-in-part of U.S. 6,113,918.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K045-00

ICS C07H001-00; C07H011-04; C07H013-02

INCL 424278100

CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6355257	B1	20020312	US 1998-74720	19980507
	US 6113918	A	20000905	US 1997-853826	19970508 <--
	ES 2224397	T3	20050301	ES 1998-922138	19980507

PRAI US 1997-853826

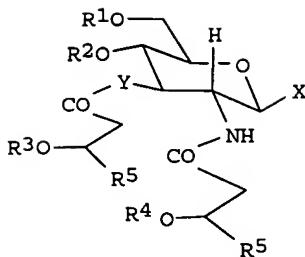
A2 19970508

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6355257	ICM	A61K045-00	
	ICS	C07H001-00; C07H011-04; C07H013-02	
	INCL	424278100	
US 6355257	NCL	424/278.100; 536/001.110; 536/117.000; 536/119.000	
	ECLA	C07H015/04D	
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000;	
		536/119.000	
	ECLA	C07H015/04D	<--

OS MARPAT 136:217004

GI



I

AB Aminoalkyl glucosamine phosphate compds. I (R = substituted alkyl; R1, R2 = H, phosphono; R3, R4 = fatty acid residue; R5 = undecyl; X = O, S; Y = O, NH) were prepared as adjuvants and immunoeffectors. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosamine ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed. Thus, N-carboxymethyl-N-[(R)-3-decanoyloxytetradecanoyl]-3-aminopropyl-2-deoxy-4-O-phosphono-2-[(R)-3-decanoyloxytetradecanoylamino]-3-O-[(R)-3-decanoyloxytetradecanoyl]- $\beta$ -D-glucopyranoside triethylammonium salt was prepared and tested as adjuvant and immunoeffector for anti-tetanus and anti-influenza activities.

ST virucide vaccine aminoalkyl glucosamine phosphate prep; cytokine prodn vaccine aminoalkyl glucosamine phosphate; vaccine antiinfluenza aminoalkyl glucosamine phosphate prep; immunization antitetanus aminoalkyl glucosamine phosphate prep; antitetanus IgG aminoalkyl glucosamine phosphate prep; aminoalkyl glucosamine phosphate prep immunoeffector adjuvant

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (IgG, immobilized; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (IgG; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
(adjuvants; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antiviral agents  
Immunization  
Vaccines  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Cytokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Glycosides  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antibodies and Immunoglobulins  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P  
 216013-82-0P 216013-88-6P 216013-97-7P 216014-06-1P 216014-15-2P  
 216014-21-0P 216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P  
 216014-56-1P 216014-63-0P 216014-69-6P 216014-76-5P 216014-82-3P  
 216014-88-9P 216014-92-5P 216014-98-1P

RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
 216013-02-4P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-11-5P 216013-12-6P 216013-13-7P 216013-14-8P  
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 216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
 216013-56-8P 216013-60-4P 216013-61-5P 216013-62-6P 216013-63-7P  
 216013-66-0P 216013-67-1P 216013-69-3P 216013-70-6P 216013-71-7P  
 216013-75-1P 216013-77-3P 216013-78-4P 216013-79-5P 216013-80-8P  
 216013-83-1P 216013-85-3P 216013-86-4P 216013-89-7P 216013-90-0P  
 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P 216013-98-8P  
 216013-99-9P 216014-00-5P 216014-01-6P 216014-02-7P 216014-04-9P  
 216014-07-2P 216014-08-3P 216014-09-4P 216014-11-8P 216014-12-9P  
 216014-13-0P 216014-16-3P 216014-17-4P 216014-19-6P 216014-22-1P  
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 216014-35-6P 216014-38-9P 216014-39-0P 216014-40-3P 216014-41-4P  
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 216014-61-8P 216014-65-2P 216014-66-3P 216014-67-4P 216014-72-1P  
 216014-73-2P 216014-74-3P 216014-77-6P 216014-78-7P 216014-80-1P  
 216014-83-4P 216014-84-5P 216014-85-6P 216014-89-0P 216014-90-3P  
 216014-93-6P 216014-94-7P 216014-95-8P 216014-99-2P 216015-00-8P  
 216015-01-9P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 66-84-2, D-Glucosamine hydrochloride 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl chloride 22348-97-6, Methyl 3-oxotetradecanoate 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8 66937-71-1 91578-89-1 122078-72-2 133099-79-3, D-Serine benzyl ester 142982-11-4 166193-98-2 216013-74-0 216014-70-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bulusu; Cyclic Analogues of Lipid A: Synthesis and Biological Activities 1992, P3463 HCPLUS
- (2) Eustache; Charbohydrate Research 1994, V251, P251 HCPLUS
- (3) Ikeda; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (4) Ikeda; Synthesis of Biologically Active N-Acylated L-serine Containing Glucosamine-4-Phosphate Derivatives of Lipid A 1993, P1879 HCPLUS
- (5) Miyajima; Chem Pharm Bull 1996, V44(12), P2268
- (6) Miyajima; Lipid A and Related Compounds XXXI 1996, P2268
- (7) Shimizu; Antitumor Activity and Biological Effects of Chemically

Synthesized Monosaccharide Analogues of Lipid A in Mice 1985, P4621 HCPLUS  
 (8) Shimizu; Biological Activities and Antitumor Effects of Synthetic Lipid A  
 Analogs Linked N-Acylated Serine 1995, P425 HCPLUS  
 (9) Shimizu; Biological Activities of Chemically Synthesized N-acylated  
 Serine-linked Lipid A Analog in Mice 1994, P659 HCPLUS

L1 ANSWER 4 OF 6 HCPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:757768 HCPLUS  
 DN 135:302901  
 ED Entered STN: 17 Oct 2001  
 TI Aminoalkyl glucosaminide phosphate compounds and their use as adjuvants  
 and immunoeffectors  
 IN Johnson, David A.; Sowell, C. Gregory  
 PA Corixa Corporation, USA  
 SO U.S., 44 pp., Cont.-in-part of U.S. 6,113,918.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C12P019-04  
 ICS A61K045-00; C07H001-00; C07H015-00; C07H011-04  
 INCL 435101000  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6303347	B1	20011016	US 1999-439839	19991112 <--
	US 6113918	A	20000905	US 1997-853826	19970508 <--
	ES 2224397	T3	20050301	ES 1998-922138	19980507
	CA 2391299	AA	20010517	CA 2000-2391299	20001113
	WO 2001034617	A2	20010517	WO 2000-US31340	20001113
	WO 2001034617	A3	20011108		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1230250	A2	20020814	EP 2000-982119	20001113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2000015501	A	20030225	BR 2000-15501	20001113
	JP 2003514783	T2	20030422	JP 2001-537329	20001113
	NZ 518860	A	20041126	NZ 2000-518860	20001113
	US 2002045586	A1	20020418	US 2001-808669	20010314
	US 6699846	B2	20040302		
	US 2002048588	A1	20020425	US 2001-905160	20010712 <--
	US 6764840	B2	20040720		
	AU 2001019189	A5	20010606	AU 2001-19189	20011113
	AU 773921	B2	20040610		
	US 2003092643	A1	20030515	US 2002-43086	20020108 <--
	US 2003199460	A1	20031023	US 2002-137730	20020430
	NO 2002002207	A	20020710	NO 2002-2207	20020508
PRAI	US 1997-853826	A2	19970508		
	US 1991-815250	A	19911281		
	US 1998-138305	A1	19980821		
	US 1999-429238	A	19991028		
	US 1999-439839	A	19991112		
	US 2000-190444P	P	20000317		
	WO 2000-US31340	W	20001113		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 6303347	ICM	C12P019-04	
	ICS	A61K045-00; C07H001-00; C07H015-00; C07H011-04	
	INCL	435101000	
US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000	
	ECLA	C07H015/04D	<--
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000	
	ECLA	C07H015/04D	<--
WO 2001034617	ECLA	C07H013/06C; C07H015/04D	
US 2002045586	NCL	514/053.000; 514/054.000; 514/175.000; 536/053.000; 536/055.000; 536/055.100; 536/123.130	
	ECLA	A61K031/70L15L; C07H015/04	
US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110	
	ECLA	C07H015/04D	<--
US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100	
	ECLA	C07H013/06C; C07H015/04D	<--
US 2003199460	NCL	514/042.000; 536/053.000	
	ECLA	C07H013/06C; C07H015/04D	
OS	MARPAT 135:302901		
AB	Aminoalkyl glucosaminide phosphate (AGP) compds. that are adjuvants and immunoeffectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed.		
ST	adjuvant immunoeffector aminoalkyl glucosaminide phosphate compd		
IT	Immunoglobulins RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (A; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Immunoglobulins RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) (G1; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Immunoglobulins RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) (G2a; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Immunoglobulins RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) (G2b; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Immunoglobulins RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (G; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Immunoglobulins RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) (M; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)		
IT	Macrophage		

(activation; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
(adjuvants; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antioxidants  
Egg, poultry  
Emulsions  
Influenza virus  
Vaccines  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Fatty acids, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antibodies  
Cytokines  
Immunoglobulins  
Ovalbumin  
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antigens  
Phosphatidylcholines, biological studies  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Phosphatidylethanolamines, biological studies  
Sphingomyelins  
Sphingosines  
Tocopherols  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Structure-activity relationship  
(antigenic; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(carriers; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT T cell (lymphocyte)  
(cytotoxic; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Micelles  
(dispersion; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antigens  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hepatitis B surface; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
(immunoeffector; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(liqs., dispersions; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Cell activation  
(macrophage; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(microparticles; aminoalkyl glucosaminide phosphate compds. and their

use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(microspheres; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunity  
(mucosal; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(nasal, intra-; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Drug delivery systems  
(oily, metabolizable; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Toxoids  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(tetanus; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 60-18-4, L-Tyrosine, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(adsorbate; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 125978-95-2, Nitric oxide synthetase  
RL: ARU (Analytical role, unclassified); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 3416-24-8D, 2-Deoxy-2-amino-D-glucose, aminoalkyl phosphate derivs.  
27194-79-2D, D-Glucosamine phosphate, aminoalkyl derivs.  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 66-84-2, D-Glucosamine hydrochloride 111-64-8, Octanoyl chloride  
112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8,  
Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl  
chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl  
chloride 2937-50-0, Allyl chloroformate 17341-93-4,  
2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl  
3-oxotetradecanoate 33243-33-3 58577-87-0 65414-74-6, L-Serinamide  
hydrochloride 66937-71-1, N-(2-Hydroxyethyl)glycine tert-butyl ester  
91578-89-1 109977-90-4 122078-72-2 133099-79-3, D-Serine benzyl  
ester 134304-48-6 142982-11-4 166193-98-2 216013-74-0  
216013-98-8 216014-16-3 216014-22-1 216014-30-1 216014-38-9  
216014-70-9 252042-31-2 339078-52-3 367273-92-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 58577-88-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
186383-49-3P 195434-34-5P 216013-03-5P 216013-05-7P 216013-06-8P  
216013-07-9P 216013-10-4P 216013-12-6P 216013-13-7P 216013-14-8P  
216013-15-9P 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P  
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216013-31-9P 216013-32-0P 216013-35-3P 216013-36-4P 216013-37-5P  
216013-38-6P 216013-42-2P 216013-43-3P 216013-44-4P 216013-45-5P  
216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
216013-56-8P 216013-60-4P 216013-61-5P 216013-62-6P 216013-63-7P  
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216014-34-5P 216014-35-6P 216014-39-0P 216014-40-3P 216014-42-5P  
216014-44-7P 216014-47-0P 216014-48-1P 216014-52-7P 216014-53-8P  
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216014-65-2P 216014-66-3P 216014-67-4P 216014-72-1P 216014-73-2P  
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 367273-78-7P 367273-79-8P 367273-82-3P 367273-83-4P 367273-86-7P  
 367273-87-8P 367273-88-9P 367273-89-0P 367273-95-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 339078-83-0P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-82-0P 216013-88-6P  
 216013-97-7P 216014-06-1P 216014-15-2P 216014-21-0P 216014-29-8P  
 216014-37-8P 216014-46-9P 216014-50-5P 216014-56-1P 216014-63-0P  
 216014-69-6P 216014-76-5P 216014-82-3P 216014-88-9P 216014-92-5P  
 216014-98-1P 339078-61-4P 339078-63-6P 339078-67-0P 339078-69-2P  
 339078-71-6P 339078-73-8P 339078-75-0P 339078-77-2P 339078-79-4P  
 339078-81-8P 339079-17-3P 367273-73-2P 367273-81-2P 367273-91-4P  
 367273-94-7P 367273-97-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 56-81-5, Glycerol, biological studies 83-44-3 102-71-6,  
 Triethanolamine, biological studies 111-02-4, Squalene 121-44-8,  
 Triethylamine, biological studies 123-78-4, Sphingosine 360-65-6  
 923-61-5 998-07-2, 1,2-Dimyristoyl-sn-glycero-3-phosphoethanolamine  
 1305-62-0, Calcium hydroxide, biological studies 7732-18-5, Water,  
 biological studies 10103-46-5, Calcium phosphate 21645-51-2, Aluminum  
 hydroxide, biological studies 106392-12-5D, PLURONIC F 68, block  
 copolymer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Baldridge; IBC Vaccine Conference 1998
- (2) Bulusu; J Med Chem 1992, V35(19), P3463 HCPLUS
- (3) Eustache; Carbohydrate Research 1994, V251, P251 HCPLUS
- (4) Ikeda; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (5) Johnson; US 6113918 2000 HCPLUS
- (6) Johnson; Bioorg Med Chem Lett 1999, V9(15), P2273 HCPLUS
- (7) Meyers; US B14912094 1994
- (8) Miyajima; Chem Pharm Bull 1996, V44(12), P2268
- (9) Myers; US 4912094 1990 HCPLUS
- (10) Shimizu; Chem Pharm Bull 1985, V33(10), P4621 HCPLUS
- (11) Shimizu; Int J Immunopharmacol 1994, V16(8), P659 HCPLUS
- (12) Shimizu; Int J Immunopharmacol 1995, V17(5), P425 HCPLUS

L1 ANSWER 5 OF 6 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2001:360008 HCPLUS

DN 134:353474

ED Entered STN: 18 May 2001

TI Preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors

IN Johnson, David A.; Sowell, C. Gregory

PA Corixa Corporation, USA

SO PCT Int. Appl., 147 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
IC ICM C07H  
CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 34, 63

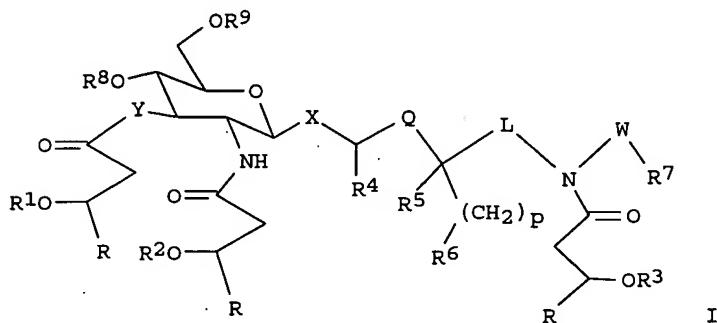
FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001034617	A2	20010517	WO 2000-US31340	20001113
	WO 2001034617	A3	20011108		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6303347	B1	20011016	US 1999-439839	19991112 --
	CA 2391299	AA	20010517	CA 2000-2391299	20001113
	EP 1230250	A2	20020814	EP 2000-982119	20001113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2000015501	A	20030225	BR 2000-15501	20001113
	JP 2003514783	T2	20030422	JP 2001-537329	20001113
	NZ 518860	A	20041126	NZ 2000-518860	20001113
	AU 2001019189	A5	20010606	AU 2001-19189	20011113
	AU 773921	B2	20040610		
	NO 2002002207	A	20020710	NO 2002-2207	20020508
PRAI	US 1999-439839	A	19991112		
	US 1997-853826	A2	19970508		
	WO 2000-US31340	W	20001113		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001034617	ICM	C07H
WO 2001034617	ECLA	C07H013/06C; C07H015/04D
US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
	ECLA	C07H015/04D

OS MARPAT 134:353474  
GI



AB Aminoalkyl glucosaminide phosphate compds. (AGP) I were prepared wherein, X is selected from the group consisting of O and S at the axial or equatorial position; Y is selected from the group consisting of O and NH;

Q is  $(CH_2)_n$ ; L is  $(CH_2)_m$ ; W is  $(CH_2)_q$ ; n, m, p, q are integers from 0 to 6; R is  $(CH_2)_{10}Me$ ; R1-R3 are the same or different and are normal fatty acyl residues having from 1 to about 20 carbon atoms and where one of R1-R3 is optionally hydrogen; R4 and R5 are the same or different and are selected from the group consisting of H and methyl; R6 and R7 are the same or different and are selected from the group consisting of H, hydroxy, alkoxy, phosphono, phosphonooxy, sulfo, sulfoxy, amino, mercapto, cyano, nitro, formyl and carboxy, and esters and amides thereof; and R8 and R9 are the same or different and are selected from the group consisting of phosphono and H, and at least one of R8 and R9 is phosphono, that are adjuvants and immuno-effectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immuno-effectors are also disclosed. Thus, N-[(R)-3-hydroxytetradecanoyl]-O-[2-deoxy-4-O-phosphono-2-[(R)-3-dodecanoyloxytetradecanoylamino]-3-O-[(R)-3-tetradecanoyloxytetradecanoyl]- $\alpha$ -L-D-glucopyranosyl]-L-serine triethylammonium salt was prepared and tested in mice as adjuvants and immuno-effectors. Mice vaccinated with formalin-inactivated influenza and the AGP compds. of the subject invention mounted a protective immune response to an influenza challenge as well as produced antibody to that antigen.

ST antiinfluenza IgG immunoeffector aminoalkyl glucosaminide phosphate prep; cytokine adjuvant immunoeffector antitetanus toxoid amino acid prep; glycoside; aminoalkyl glucosaminide phosphate prep adjuvant immunoeffector antitetanus toxoid antibody

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G1; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G2a; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G2b; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunostimulants  
(adjuvants; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Influenza  
(anti; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Macrophage  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Amino acids, preparation  
Antibodies  
Cytokines  
Glycosides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

## IT Toxoids

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(tetanus; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P 216013-82-0P  
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216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P 216014-56-1P  
216014-63-0P 216014-69-6P 216014-76-5P 216014-82-3P 216014-88-9P  
216014-92-5P 216014-98-1P 339078-59-0P 339078-61-4P 339078-63-6P  
339078-65-8P 339078-67-0P 339078-69-2P 339078-71-6P 339078-73-8P  
339078-75-0P 339078-77-2P 339078-79-4P 339078-81-8P 339078-85-2P  
339079-17-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 66-84-2 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 2456-81-7, 4-Pyrrolidinopyridine 2528-61-2, Heptanoyl chloride 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide methiodide 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl chloroformate 66937-71-1 109977-90-4 122078-72-2 133099-79-3, D-Serine benzyl ester 134304-48-6 166193-98-2 190586-91-5  
216014-70-9 339078-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 1738-72-3P 2524-64-3P, Diphenyl chlorophosphate 76062-98-1P  
87357-76-4P 91578-89-1P 91681-56-0P 122105-45-7P 122210-01-9P  
186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
216013-10-4P 216013-12-6P 216013-13-7P 216013-14-8P 216013-15-9P  
216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P 216013-26-2P  
216013-27-3P 216013-28-4P 216013-29-5P 216013-30-8P 216013-31-9P  
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339078-58-9P 339078-82-9P 339078-83-0P 339078-86-3P 339078-87-4P  
339079-15-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

## (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bulusu, M; J Med Chem 1992, V35, P3463 HCPLUS
- (2) Ikeda, K; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (3) Miyajima, K; Chem Pharm Bull 1996, V44(12), P2268
- (4) Shimizu, T; Chem Pharm Bull 1985, V33(10), P4621 HCPLUS
- (5) Shimizu, T; Int J Immunopharmac 1994, V16(8), P659 HCPLUS
- (6) Shimizu, T; Int J Immunopharmac 1995, V17(5), P425 HCPLUS

L1 ANSWER 6 OF 6 HCPLUS COPYRIGHT 2005 ACS on STN

AN 1998:745066 HCPLUS

DN 130:14164

ED Entered STN: 24 Nov 1998

TI Preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors

IN Johnson, David A.; Sowell, C. Gregory

PA Ribi Immunochem Research, Inc., USA

SO PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07H015-04

ICS A61K031-70

CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 63

FAN.CNT 10

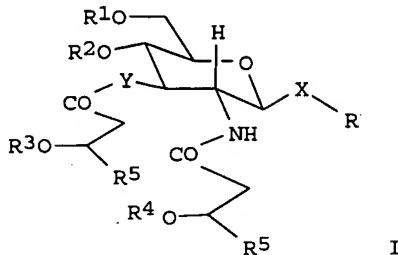
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9850399	A1	19981112	WO 1998-US9385	19980507
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US	6113918	A	20000905	US 1997-853826	19970508 <--
CA	2288601	AA	19981112	CA 1998-2288601	19980507
AU	9874747	A1	19981127	AU 1998-74747	19980507
AU	740663	B2	20011108		
EP	983286	A1	20000308	EP 1998-922138	19980507
EP	983286	B1	20040728		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR	9809791	A	20000627	BR 1998-9791	19980507
JP	2002512623	T2	20020423	JP 1998-548512	19980507
NZ	500938	A	20020531	NZ 1998-500938	19980507
AP	1181	A	20030630	AP 1999-1693	19980507
	W: GH, GM, KE, LS, MW, SD, SZ, UG, ZW				
AT	272067	E	20040815	AT 1998-922138	19980507
PL	188046	B1	20041130	PL 1998-343205	19980507
ES	2224397	T3	20050301	ES 1998-922138	19980507
MX	9910262	A	20000831	MX 1999-10262	19991108
PRAI	US 1997-853826	A	19970508		
	WO 1998-US9385	W	19980507		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9850399	ICM	C07H015-04
	ICS	A61K031-70
WO 9850399	ECLA	C07H015/04D
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000

AP 1181 ECLA C07H015/04D  
 OS MARPAT 130:14164 ECLA C07H015/04D  
 GI

&lt;--



AB Aminoalkyl glucosamine phosphate compds. I (R = substituted alkyl; R1, R2 = H, phosphono; R3, R4 = fatty acid residue; R5 = undecyl; X = O, S; Y = O, NH) were prepared as adjuvants and immunoeffectors. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosamine ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed. Thus, N-carboxymethyl-N-[(R)-3-decanoyloxytetradecanoyl]-3-aminopropyl-2-deoxy-4-O-phosphono-2-[(R)-3-decanoyloxytetradecanoylamino]-3-O-[(R)-3-decanoyloxytetradecanoyl]- $\beta$ -D-glucopyranoside triethylammonium salt was prepared and tested as adjuvant and immunoeffector for anti-tetanus and anti-influenza activities.

ST virucide vaccine aminoalkyl glucosamine phosphate prep; cytokine prodn vaccine aminoalkyl glucosamine phosphate; vaccine antiinfluenza aminoalkyl glucosamine phosphate prep; immunization antitetanus aminoalkyl glucosamine phosphate prep; antitetanus IgG aminoalkyl glucosamine phosphate prep immunoeffect adjuvant

IT Immunoglobulins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (G; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
 (adjuvants; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antiviral agents  
 Immunization  
 Vaccines  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Glycosides  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antibodies  
 Cytokines  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P

216013-82-0P 216013-88-6P 216013-97-7P 216014-06-1P 216014-15-2P  
 216014-21-0P 216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P  
 216014-56-1P 216014-63-0P 216014-69-6P 216014-76-5P 216014-82-3P  
 216014-88-9P 216014-92-5P 216014-98-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
 216013-02-4P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
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 216013-15-9P 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P  
 216013-26-2P 216013-27-3P 216013-28-4P 216013-29-5P 216013-30-8P  
 216013-31-9P 216013-32-0P 216013-35-3P 216013-36-4P 216013-37-5P  
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 216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
 216013-56-8P 216013-60-4P 216013-61-5P 216013-62-6P 216013-63-7P  
 216013-66-0P 216013-67-1P 216013-69-3P 216013-70-6P 216013-71-7P  
 216013-75-1P 216013-77-3P 216013-78-4P 216013-79-5P 216013-80-8P  
 216013-83-1P 216013-85-3P 216013-86-4P 216013-89-7P 216013-90-0P  
 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P 216013-98-8P  
 216013-99-9P 216014-00-5P 216014-01-6P 216014-02-7P 216014-04-9P  
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 216014-23-2P 216014-24-3P 216014-25-4P 216014-26-5P 216014-27-6P  
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 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P 216014-52-7P  
 216014-53-8P 216014-54-9P 216014-57-2P 216014-59-4P 216014-60-7P  
 216014-61-8P 216014-65-2P 216014-66-3P 216014-67-4P 216014-72-1P  
 216014-73-2P 216014-74-3P 216014-77-6P 216014-78-7P 216014-80-1P  
 216014-83-4P 216014-84-5P 216014-85-6P 216014-89-0P 216014-90-3P  
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 216015-01-9P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 66-84-2, D-Glucosamine hydrochloride 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl chloride 22348-97-6, Methyl 3-oxotetradecanoate 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8 66937-71-1 91578-89-1 122078-72-2 133099-79-3, D-Serine benzyl ester 142982-11-4 166193-98-2 216013-74-0 216014-70-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Eustache, J; Carbohydrate Research 1994, V251, P251 HCAPLUS
- (2) Ikeda, K; Chemical and Pharmaceutical Bulletin 1993, V41(10), P1879 HCAPLUS
- (3) Miyajima, K; Chemical and Pharmaceutical Bulletin 1996, V44(12), P2268

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FILE LAST UPDATED: 2 AUG 2005 <20050802/UP>  
 MOST RECENT DERWENT UPDATE: 200549 <200549/DW>  
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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[<<<](http://www.stn-international.de/training_center/patents/stn_guide.pdf)

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[<<<](http://thomsonderwent.com/coverage/latestupdates/)

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 GUIDES, PLEASE VISIT:  
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>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.  
 PLEASE CHECK:

<http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/>  
 FOR DETAILS. <<<

'BIX BI, ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d all 14 tot

L4 ANSWER 1 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2003-801176 [75] WPIX  
 CR 1998-610316 [51]; 2001-355479 [37]; 2002-380932 [41]; 2002-655177 [70];  
 2004-051328 [05]  
 DNC C2003-221153

TI Aminoalkyl glucosaminide phosphate compounds useful for treating cancer,  
 or useful as adjuvants and immunoeffectors.

DC A96 B03 B04 D16

IN JOHNSON, D A; SOWELL, C G

PA (CORI-N) CORIXA CORP

CYC 1

PI US 2003092643 A1 20030515 (200375)\* 60 A61K039-02 <--  
 ADT US 2003092643 A1 CIP of US 1997-853826 19970508, Cont of US 1999-439839

19991112, CIP of US 2001-905160 20010712, US 2002-43086 20020108

FDT US 2003092643 A1 CIP of US 6113918, Cont of US 6303347

PRAI US 2002-43086 20020108; US 1997-853826 19970508;  
 US 1999-439839 19991112; US 2001-905160 20010712

IC ICM A61K039-02

ICS A61K031-739; C07H005-04

AB US2003092643 A UPAB: 20040120

NOVELTY - An immunoeffector compound (I) comprising aminoalkyl  
 glucosaminide phosphate is new.

DETAILED DESCRIPTION - Immunoeffector compound having the structure  
 (I) is new.

X = O or S;

Y = O or NH;

n, m, p, q = 0-6;

R1, R2, R3 = normal fatty acyl residues having 1-20C and where one  
 of R1, R2 or R3 is option- ally hydrogen, which are same or different;

R4, R5 = H and methyl, which are same or different;

R6, R7 = H, hydroxy, alkoxy, phosphono, phosphonoxy, sulfo,  
 sulfoxy, amino, mercap- to, cyano, nitro, formyl and carboxy, and esters  
 and its amides, which are same or different; and

R8 and R9 = H and phosphono, which are same or different, and at  
 least one of R8 and R9 is phosphono.

INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic composition comprising (I), an antigen and a

suitable carrier;

- (2) a pharmaceutical composition (C1) comprising (I) and a carrier;
- (3) a composition (C2) comprising (I) and one or more peptide; and
- (4) a composition (C3) comprising (I) and one or more polynucleotide.

ACTIVITY - Virucide.

The virucide effect of 2-((R)-3-Tetradecanoyloxytetradecanoylamino)ethyl 2-deoxy-4-O-3-phosphono-3-O-((R)-3-tetradecanoyloxytetradecanoyl)-2-((R)-3-tetradecanoyloxytetradecanoylamino) beta-D-glucopyranoside (B19) was as follows. Mice were administered with hepatitis B surface antigen (HBsAg) intranasally with B19 which produced serum IgG and IgA titers to that antigen. Secretory IgA was detected in vaginal washes and the induction of a cytotoxic T-lymphocyte response was detected by cytotoxicity assay. Groups of BALB/c mice were given a primary immunization intranasally with 2.5 micro g HBsAg+10 micro g AGP-AF in a volume of 20 micro l. AGP-AF was prepared. Twenty-one days later mice were given a secondary immunization of 7.5 micro g HBsAg+10 micro g AGP-AF intranasally in 20 micro l volume. A tertiary immunization identical in composition to the secondary immunization was administered 28 days after the secondary immunization. Assays were conducted to detect cytotoxic T-lymphocyte activity at 16 days post secondary immunization and 8 days post tertiary immunization. Serum and mucosal antibody titers were assessed at 22 days post secondary immunization and 21 days post tertiary immunization. Antibody assays were conducted by standard enzyme linked immunosorbent assay (ELISA) methods. Cytotoxicity assays were conducted and better results were displayed for B19.

MECHANISM OF ACTION - Stimulator of immune response (claimed).

USE - (C1) is useful for enhancing immune response of a mammal. (III) or (IV) is useful for eliciting an immune response in a mammal (human), which involves administering (III) or (IV). The immune response is immuno protective (claimed).

DESCRIPTION OF DRAWING(S) - The figure shows the graph depicting the percentage of human subjects achieving seroprotection by hepatitis B surface antigen (AgB) alone or in combination with the aminoalkyl glucosaminide phosphate (AGP).

Dwg.1/4

FS CPI  
 FA AB; GI; DCN  
 MC CPI: A12-V01; B01-D02; B04-B01B; B04-C01; B04-E02F; B04-E03F; B05-B01P; B06-A01; B07-A02B; B10-B03B; B10-B04B; B10-J02; B14-A02; B14-G01; D05-H12

L4 ANSWER 2 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2002-655177 [70] WPIX  
 CR 1998-610316 [51]; 2001-355479 [37]; 2002-380932 [41]; 2003-801176 [75];  
 2004-051328 [05]

DNC C2002-183971  
 TI New Aminoalkyl glucoaminide phosphate derivatives, useful for enhancing immune response and in vaccines.

DC B03  
 IN JOHNSON, D A; SOWELL, C G  
 PA (JOHN-I) JOHNSON D A; (SOWE-I) SOWELL C G; (CORI-N) CORIXA CORP

CYC 1  
 PI US 2002048588 A1 20020425 (200270)\* 45 A61K031-70 <--  
 US 6764840 B2 20040720 (200448) C12P019-04 <--

ADT US 2002048588 A1 CIP of US 1997-853826 19970508, Cont of US 1999-439849 19991112, US 2001-905160 20010712; US 6764840 B2 CIP of US 1997-853826 19970508, Cont of US 1999-439849 19991112, US 2001-905160 20010712

FDT US 2002048588 A1 CIP of US 6113918; US 6764840 B2 CIP of US 6113918

PRAI US 1999-439849 19991112; US 1997-853826 19970508;  
 US 2001-905160 20010712

IC ICM A61K031-70; C12P019-04  
 ICS A61K039-00; A61K047-00; C07H001-00; C07H005-04

AB US2002048588 A UPAB: 20040728

NOVELTY - Aminoalkyl glucoaminide phosphate compounds are new.

DETAILED DESCRIPTION - Aminoalkyl glucoaminide phosphate compounds of formula (I) are new.

X = O or S at the axial or equatorial position;  
 Y = O or NH;  
 m, n, p, q = 0 to 6;  
 R1, R2, R3 = 1-20C fatty acyl residues and one is optionally H;  
 R4, R5 = H or Me;  
 R6, R7 = H, OH, alkoxy, phosphono, phosphonooxy, sulfo, sulfoxy,  
 NH2, SH, CN, NO2, CHO, COOH, esters or amides;  
 R8, R9 = phosphono or H, provided that at least one is phosphono.  
 INDEPENDENT CLAIMS are included for:  
 (1) a method for enhancing immune response comprising administration  
 of (I);  
 (2) a vaccine composition comprising (I), an antigen and a carrier;  
 and  
 (3) compositions comprising (I).

## ACTIVITY - Immunostimulant.

USE - Compounds (I) are useful for enhancing immune response and in  
 can be used in the form of a vaccine.

Dwg.0/0

FS CPI  
 FA AB; GI; DCN  
 MC CPI: B04-B01B; B05-B01M; B14-G01; B14-S11

L4 ANSWER 3 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2001-355479 [37] WPIX  
 CR 1998-610316 [51]; 2002-380932 [41]; 2002-655177 [70]; 2003-801176 [75];  
 2004-051328 [05]  
 DNC C2001-110191  
 TI Aminoalkyl glucosaminide phosphate compounds useful as immunoeffectors for  
 augmenting antibody production, stimulating cytokine production and  
 activating macrophages.  
 DC B03  
 IN JOHNSON, D A; SOWELL, C G; SOWELL, G C  
 PA (CORI-N) CORIXA CORP  
 CYC 95  
 PI WO 2001034617 A2 20010517 (200137)\* EN 174 C07H000-00  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
 SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 AU 2001019189 A 20010606 (200152)  
 US 6303347 B1 20011016 (200164) C12P019-04 <--  
 NO 2002002207 A 20020710 (200258) C07H000-00  
 EP 1230250 A2 20020814 (200261) EN C07H013-06  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR  
 BR 2000015501 A 20030225 (200320) C07H013-06  
 JP 2003514783 W 20030422 (200336) 190 C07H015-04  
 CN 1409720 A 20030409 (200345) C07H013-06  
 MX 2002004774 A1 20030101 (200373) C07H000-00000  
 AU 773921 B2 20040610 (200467) C07H013-06  
 NZ 518860 A 20041126 (200479) C07H015-04  
 ADT WO 2001034617 A2 WO 2000-US31340 20001113; AU 2001019189 A AU 2001-19189  
 20001113; US 6303347 B1 CIP of US 1997-853826 19970508, US 1999-439839  
 19991112; NO 2002002207 A WO 2000-US31340 20001113, NO 2002-2207 20020508;  
 EP 1230250 A2 EP 2000-982119 20001113, WO 2000-US31340 20001113; BR  
 2000015501 A BR 2000-15501 20001113, WO 2000-US31340 20001113; JP  
 2003514783 W WO 2000-US31340 20001113, JP 2001-537329 20001113; CN 1409720  
 A CN 2000-816859 20001113; MX 2002004774 A1 WO 2000-US31340 20001113, MX  
 2002-4774 20020510; AU 773921 B2 Div ex AU 1998-74747 19980507, AU  
 2001-19189 20001113; NZ 518860 A NZ 2000-518860 20001113, WO 2000-US31340  
 20001113  
 FDT AU 2001019189 A Based on WO 2001034617; US 6303347 B1 CIP of US 6113918;  
 EP 1230250 A2 Based on WO 2001034617; BR 2000015501 A Based on WO  
 2001034617; JP 2003514783 W Based on WO 2001034617; MX 2002004774 A1 Based

on WO 2001034617; AU 773921 B2 Previous Publ. AU 2001019189, Based on WO 2001034617; NZ 518860 A Based on WO 2001034617

PRAI US 1999-439839 19991112; US 1997-853826 19970508  
 IC ICM C07H000-00; C07H000-00000; C07H013-06; C07H015-04; C12P019-04  
 ICS A61K009-127; A61K031-7028; A61K039-00; A61K039-39; A61K045-00;  
 A61K047-02; A61K047-06; A61K047-10; A61K047-18; A61K047-22;  
 A61K047-24; A61K047-26; A61K047-34; A61P037-02; A61P037-04;  
 A61P043-00; C07H001-00; C07H011-04; C07H015-00; C07H015-14

AB WO 200134617 A UPAB: 20041208

NOVELTY - Aminoalkyl glucosaminide phosphate compounds (I), are new.

DETAILED DESCRIPTION - Aminoalkyl glucosaminide phosphate compounds of formula (I) are new.

X = O or S;

Y = O or NH;

n,m,p,q = 0-6:

R1-R3 = 1-20C fatty acid residue where one of R1-R3 is optionally H;  
 R4, R5 = H or methyl;

R6, R7 = H, OH, alkoxy, phosphono, phosphonooxy, sulfo, sulfoxy, amino, mercapto, CN, nitro, formyl, carboxyl or their esters or amides; and

R8, R9 = H or phosphono, provided that one of R8 and R9 is phosphono;

INDEPENDENT CLAIMS are also included for the following:

- (a) a vaccine composition comprising (I), an antigen and a carrier;
- (b) a composition (II) comprising (I) and a carrier (III); and
- (c) a method for enhancing the immune response of a mammal by administering (I).

ACTIVITY - Immunoeffector.

(I) were evaluated for inducible nitric oxide synthetase activity (NOS ED50) which correlates with macrophage activation which is an indication of immune stimulation. Mouse peritoneal exudates cells were harvested and the adherent cell population was isolated. The adherent cells were exposed to varying concentrations of (I) and the resulting induction and secretion of nitrite was measured. The NOS ED50 values represent a concentration of (I) required to stimulate half the maximum amount of nitrite release and correspond to the concentration required to stimulate macrophages. N-((R)-3-decanoyloxytetradecanoyl)-O-(2-deoxy-4-O-phosphono-2-((R)-3-decanoyloxytetradecanoylamino)-3-O-((R)-3-decanoyloxytetradecanoyl)- beta-D-glucopyranosyl)-L-serine triethylammonium salt (Ia) had an ED50 value of 0.06 nanograms/ml.

MECHANISM OF ACTION - None given.

USE - (I) are useful as immunoeffector for enhancing antibody production in immunized animals, stimulating cytokine production and activating macrophages. They also stimulate a cell-mediated immune response including a cytotoxic T-lymphocyte response.

ADVANTAGE - (I) are effective and safe adjuvants potentiating both a humoral and cellular immune response. Prior art adjuvants such as alum have side effects and enhances humoral immunity only. Other prior art compounds often display toxic properties, are unstable and/or have unsubstantial immunostimulatory effects.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B01-D02; B04-B04C; B05-B01M; B05-B01P; B10-B04B; B14-G01

L4 ANSWER 4 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1998-610316 [51] WPIX

CR 2001-355479 [37]; 2002-380932 [41]; 2002-655177 [70]; 2003-801176 [75];  
 2004-051328 [05]

DNC C1998-183001

TI New amino-alkyl glucosamine phosphate compounds - useful for augmenting antibody production in immunised animals, stimulating cytokine production and activating macrophages.

DC B03

IN JOHNSON, D A; SOWELL, C G; JOHNSON, A; SOWELL, G

PA (CORI-N) CORIXA CORP; (RIBI-N) RIBI IMMUNOCHEM RES INC

CYC 74  
 PI WO 9850399 A1 19981112 (199851)\* EN 140 C07H015-04  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
 OA PT SD SE SZ UG ZW  
 W: AL AU BA BB BG BR CA CN CU CZ EE GE GW HU ID IL IS JP KP KR LC LK  
 LR LT LV MG MK MN MX NO NZ PL RO SG SI SK SL TR TT UA UZ VN YU ZW  
 AU 9874747 A 19981127 (199915) C07H015-04  
 EP 983286 A1 20000308 (200017) EN C07H015-04  
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 BR 9809791 A 20000627 (200039) C07H015-04  
 US 6113918 A 20000905 (200044) A61K045-00 <--  
 CN 1265112 A 20000830 (200059) C07H015-04  
 HU 2000004147 A2 20010428 (200131) C07H015-04  
 MX 9910262 A1 20000801 (200137) C07H015-04  
 KR 2001012333 A 20010215 (200154) C07H015-04  
 AU 740663 B 20011108 (200176) C07H015-04  
 JP 2002512623 W 20020423 (200243) 145 C07H015-04  
 NZ 500938 A 20020531 (200246) C07H015-04  
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 ES 2224397 T3 20050301 (200519) C07H015-04  
 DE 69825271 T2 20050728 (200549) C07H015-04  
 ADT WO 9850399 A1 WO 1998-US9385 19980507; AU 9874747 A AU 1998-74747  
 19980507; EP 983286 A1 EP 1998-922138 19980507, WO 1998-US9385 19980507;  
 BR 9809791 A BR 1998-9791 19980507, WO 1998-US9385 19980507; US 6113918 A  
 US 1997-853826 19970508; CN 1265112 A CN 1998-806169 19980507; HU  
 2000004147 A2 WO 1998-US9385 19980507, HU 2000-4147 19980507; MX 9910262  
 A1 MX 1999-10262 19991108; KR 2001012333 A KR 1999-710285 19991106; AU  
 740663 B AU 1998-74747 19980507; JP 2002512623 W JP 1998-548512 19980507,  
 WO 1998-US9385 19980507; NZ 500938 A NZ 1998-500938 19980507, WO  
 1998-US9385 19980507; EP 983286 B1 EP 1998-922138 19980507, WO 1998-US9385  
 19980507; DE 69825271 E DE 1998-625271 19980507, EP 1998-922138 19980507,  
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 69825271 T2 DE 1998-625271 19980507, EP 1998-922138 19980507, WO  
 1998-US9385 19980507  
 FDT AU 9874747 A Based on WO 9850399; EP 983286 A1 Based on WO 9850399; BR  
 9809791 A Based on WO 9850399; HU 2000004147 A2 Based on WO 9850399; AU  
 740663 B Previous Publ. AU 9874747, Based on WO 9850399; JP 2002512623 W  
 Based on WO 9850399; NZ 500938 A Based on WO 9850399; EP 983286 B1 Based  
 on WO 9850399; DE 69825271 E Based on EP 983286, Based on WO 9850399; ES  
 2224397 T3 Based on EP 983286; DE 69825271 T2 Based on EP 983286, Based on  
 WO 9850399  
 PRAI US 1997-853826 19970508  
 IC ICM A61K045-00; C07H015-04  
 ICS A61K031-70; A61K031-7028; A61K039-39; A61P037-04; C07H001-00;  
 C07H011-04; C07H015-00; C07H015-14  
 AB WO 9850399 A UPAB: 20050802  
 Aminoalkyl glucosamine phosphate compounds of formula (I) are new. X = O  
 or S; Y = O or NH; n, m, p, q = 0-6; R1-R3 = 7-16C normal fatty acyl  
 residues; R4, R5 = H or Me; R6, R7 = H, OH, alkoxy, phosphono,  
 phosphonooxy, sulpho, sulphony, NH2, SH, CN, NO2, formyl or carboxy (or  
 their esters or amides); R8, R9 = H or phosphono, but not both H.  
 USE - (I) are immuno-effector molecules which augment antibody  
 production in immunised animals, stimulate cytokine production and  
 activate macrophages. They are used for enhancing immune response  
 (claimed), i. e. as adjuvants. Vaccines and pharmaceutical compositions  
 containing (I) are claimed.  
 ADVANTAGE - (I) have potent immuno-modulating effects, and can  
 improve the efficacy and safety of existing vaccines or provide synthetic  
 peptide or carbohydrate antigens with sufficient antigenicity for use in  
 vaccines.  
 Dwg.0/0  
 FS CPI  
 FA AB; GI; DCN  
 MC CPI: B04-G01; B05-B01E; B05-B01M; B14-G01

=> b home

FILE 'HOME' ENTERED AT 06:42:38 ON 05 AUG 2005

=>

=> d his full

(FILE 'HOME' ENTERED AT 06:39:27 ON 05 AUG 2005)

FILE 'HCAPLUS' ENTERED AT 06:39:34 ON 05 AUG 2005  
 L1 6 SEA ABB=ON PLU=ON (US2003092643 OR US6764840 OR US2002048588  
 OR US6303347 OR US6113918)/PN

FILE 'REGISTRY' ENTERED AT 06:41:28 ON 05 AUG 2005

FILE 'HCAPLUS' ENTERED AT 06:41:30 ON 05 AUG 2005  
 L2 TRA L1 1- RN : 313 TERMS

FILE 'REGISTRY' ENTERED AT 06:41:31 ON 05 AUG 2005  
 L3 313 SEA ABB=ON PLU=ON L2

FILE 'WPIX' ENTERED AT 06:41:39 ON 05 AUG 2005  
 L4 4 SEA ABB=ON PLU=ON (US2003092643 OR US6764840 OR US2002048588  
 OR US6303347 OR US6113918)/PN

FILE 'REGISTRY' ENTERED AT 07:39:44 ON 05 AUG 2005  
 L5 STR  
 L6 6 SEA SSS SAM L5  
 L7 125 SEA SSS FUL L5  
 SAV TEM LE086F0/A L7  
 L8 37 SEA ABB=ON PLU=ON L7 AND L3  
 L9 14 SEA ABB=ON PLU=ON C69H127N2019P OR C75H139N2019P OR C81H151N2  
 O19P OR C87H163N2019P  
 L10 26 SEA ABB=ON PLU=ON C93H175N2019P OR C77H143N2019P OR C73H135N2  
 O19P  
 L11 38 SEA ABB=ON PLU=ON (L9 OR L10) AND L7  
 L12 STR L5  
 L13 4 SEA SUB=L7 SSS SAM L12  
 L14 63 SEA SUB=L7 SSS FUL L12  
 L15 38 SEA ABB=ON PLU=ON L14 AND L11  
 L16 25 SEA ABB=ON PLU=ON L14 NOT L15

FILE 'HCAPLUS' ENTERED AT 08:36:00 ON 05 AUG 2005  
 E JONHSON D/AU  
 E JOHNSON D/AU  
 L17 596 SEA ABB=ON PLU=ON ("JOHNSON D"/AU OR "JOHNSON D A"/AU OR  
 "JOHNSON D A G"/AU OR "JOHNSON D A W"/AU OR "JOHNSON D ALAN  
 E"/AU)  
 E JOHNSON DAV/AU  
 L18 13 SEA ABB=ON PLU=ON "JOHNSON DAVE"/AU  
 E JOHNSON DAVID/AU  
 L19 556 SEA ABB=ON PLU=ON ("JOHNSON DAVID"/AU OR "JOHNSON DAVID  
 A"/AU OR "JOHNSON DAVID A G"/AU OR "JOHNSON DAVID AARON"/AU OR  
 "JOHNSON DAVID ALAN"/AU OR "JOHNSON DAVID ALEXANDER"/AU OR  
 "JOHNSON DAVID ALFRED"/AU OR "JOHNSON DAVID ALLAN"/AU OR  
 "JOHNSON DAVID ANDREW"/AU OR "JOHNSON DAVID ANTHONY"/AU OR  
 "JOHNSON DAVID ARTHUR"/AU)  
 E SOWELL G/AU

L20 13 SEA ABB=ON PLU=ON ("SOWELL G A"/AU OR "SOWELL GLENN ALLEN"/AU  
 OR "SOWELL GREG"/AU OR "SOWELL GREGORY"/AU)  
 E SOWELL C/AU  
 L21 28 SEA ABB=ON PLU=ON ("SOWELL C G"/AU OR "SOWELL C GREGORY"/AU  
 OR "SOWELL CHARLES GREGORY"/AU OR "SOWELL CHARLES L"/AU)  
 E CORIXA/CS, PA  
 L22 476 SEA ABB=ON PLU=ON CORIXA/CS, PA  
 L23 14 SEA ABB=ON PLU=ON L16  
 L24 18 SEA ABB=ON PLU=ON L11  
 L25 14 SEA ABB=ON PLU=ON L23 AND (L17 OR L18 OR L19 OR L20 OR L21  
 OR L22)  
 L26 18 SEA ABB=ON PLU=ON L24 AND (L17 OR L18 OR L19 OR L20 OR L21  
 OR L22)

FILE 'USPATFULL, USPAT2' ENTERED AT 08:38:55 ON 05 AUG 2005

L27 10 SEA ABB=ON PLU=ON L16  
 L28 11 SEA ABB=ON PLU=ON L11  
     E JOHNSON D/AU  
 L29 1 SEA ABB=ON PLU=ON "JOHNSON D ALAN E"/AU  
     E JOHNSON DAV/AU  
 L30 243 SEA ABB=ON PLU=ON ("JOHNSON DAVE"/AU OR "JOHNSON DAVID"/AU  
     OR "JOHNSON DAVID A"/AU OR "JOHNSON DAVID ALAN"/AU OR "JOHNSON  
     DAVID ALLAN"/AU OR "JOHNSON DAVID ANDREW"/AU OR "JOHNSON DAVID  
     AUGUST"/AU)  
     E SOWELL/AU  
 L31 23 SEA ABB=ON PLU=ON ("SOWELL C GREGORY"/AU OR "SOWELL GREG"/AU)  
 L32 255 SEA ABB=ON PLU=ON CORIXA/CS, PA  
 L33 10 SEA ABB=ON PLU=ON L27 AND (L29 OR L30 OR L31 OR L32)  
 L34 11 SEA ABB=ON PLU=ON L28 AND (L29 OR L30 OR L31 OR L32)

FILE 'HCAOLD' ENTERED AT 08:40:37 ON 05 AUG 2005

L35 0 SEA ABB=ON PLU=ON L16  
 L36 0 SEA ABB=ON PLU=ON L11

FILE 'HCAPLUS' ENTERED AT 08:40:55 ON 05 AUG 2005

L37 19 SEA ABB=ON PLU=ON (L25 OR L26)

FILE 'USPATFULL, USPAT2' ENTERED AT 08:41:00 ON 05 AUG 2005

L38 12 SEA ABB=ON PLU=ON (L33 OR L34)

=> b reg

FILE 'REGISTRY' ENTERED AT 08:42:59 ON 05 AUG 2005  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
 provided by InfoChem.

STRUCTURE FILE UPDATES: 4 AUG 2005 HIGHEST RN 858414-27-4  
 DICTIONARY FILE UPDATES: 4 AUG 2005 HIGHEST RN 858414-27-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

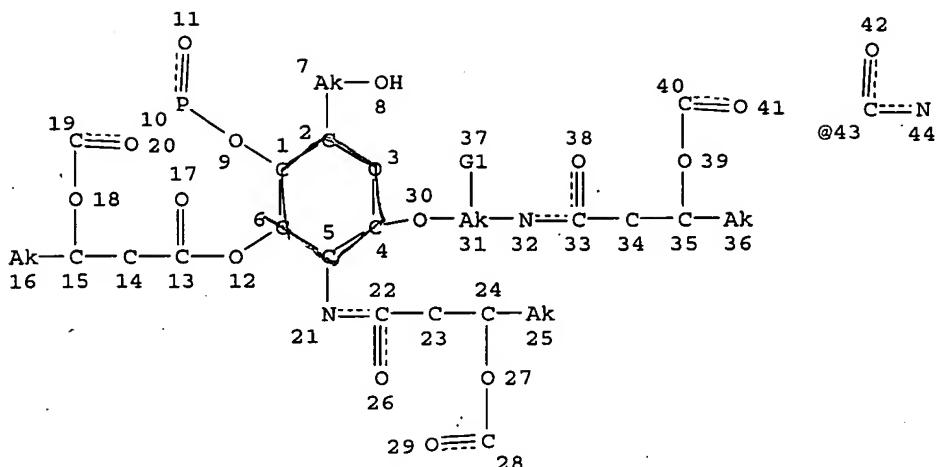
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

\*\*\*\*\*
 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
 for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d que sta 17  
 L5 STR



VAR G1=OH/CO2H/43

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

L7 125 SEA FILE=REGISTRY SSS FUL L5

100.0% PROCESSED 753 ITERATIONS

125 ANSWERS

SEARCH TIME: 00.00.02

=&gt; d ide l11 tot

L11 ANSWER 1 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 566170-30-7 REGISTRY

ED Entered STN: 14 Aug 2003

CN L-Serine, O-[2-deoxy-<sup>3-O</sup>-(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-, compd. with  
N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C73 H135 N2 O19 P . C6 H15 N

SR CA

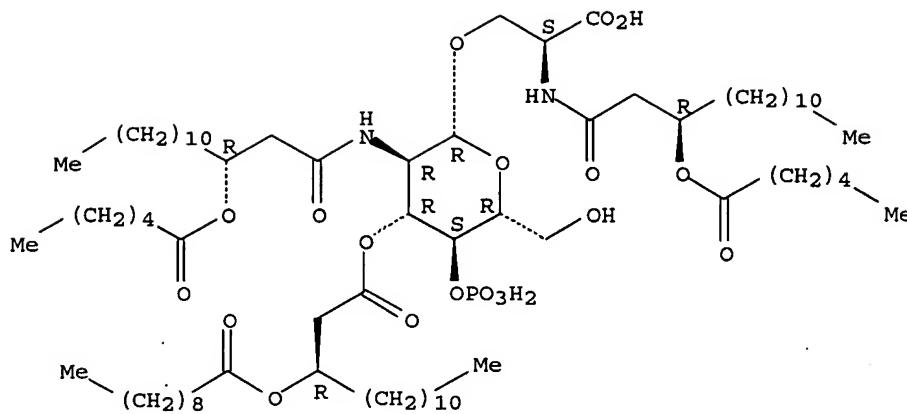
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

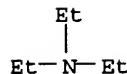
CRN 566170-29-4

CMF C73 H135 N2 O19 P

Absolute stereochemistry.

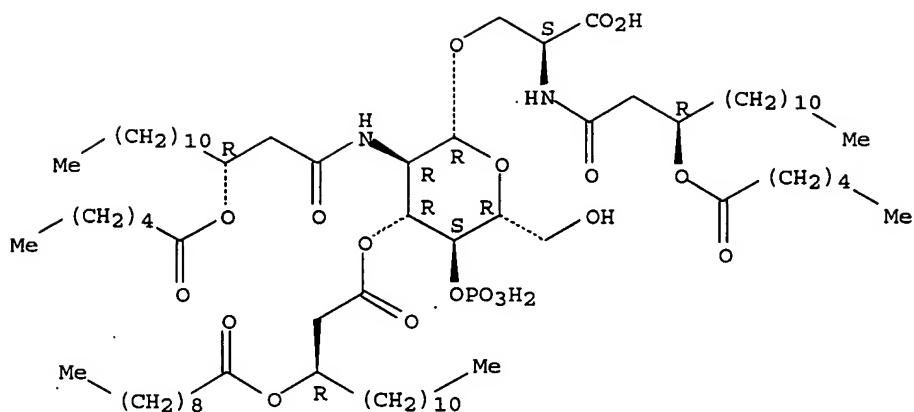


CM 2

CRN 121-44-8  
CMF C6 H15 N1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 2 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 566170-29-4 REGISTRY  
 ED Entered STN: 14 Aug 2003  
 CN L-Serine, O- [2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl] -N- [(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 570  
 FS STEREOSEARCH  
 DR 854921-06-5  
 MF C73 H135 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

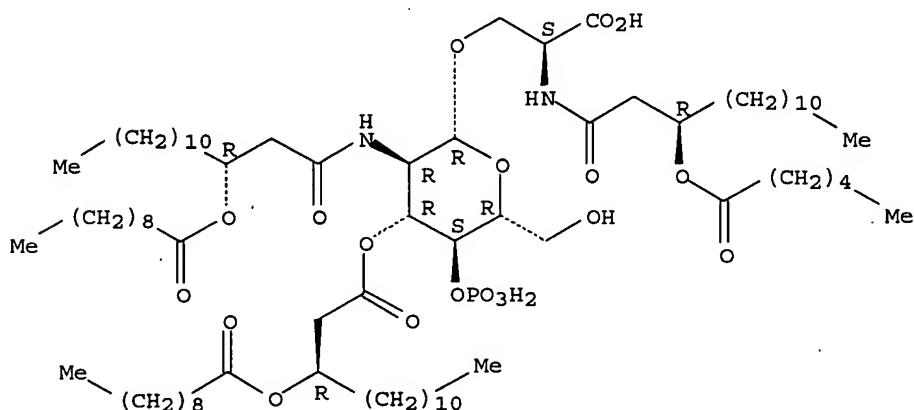
L11 ANSWER 3 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
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 ED Entered STN: 14 Aug 2003  
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 [[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

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CRN 566170-27-2

CMF C77 H143 N2 O19 P

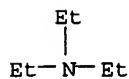
Absolute stereochemistry.



CM 2

CRN 121-44-8

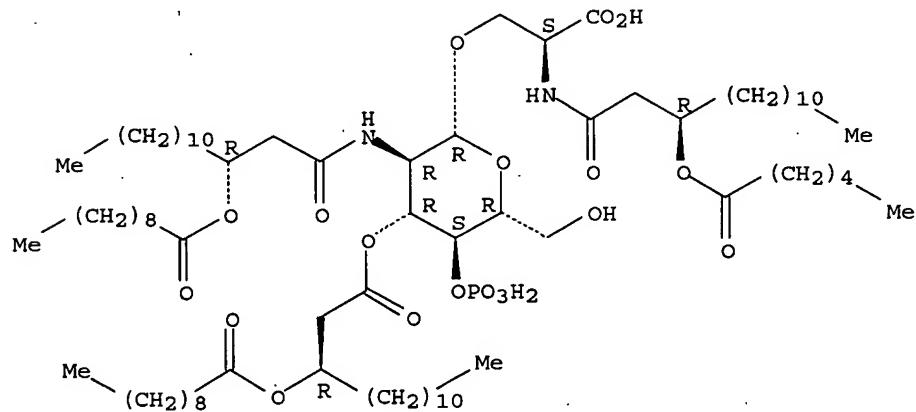
CMF C6 H15 N



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 4 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 566170-27-2 REGISTRY  
 ED Entered STN: 14 Aug 2003  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 569  
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 DR 854920-86-8  
 MF C77 H143 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



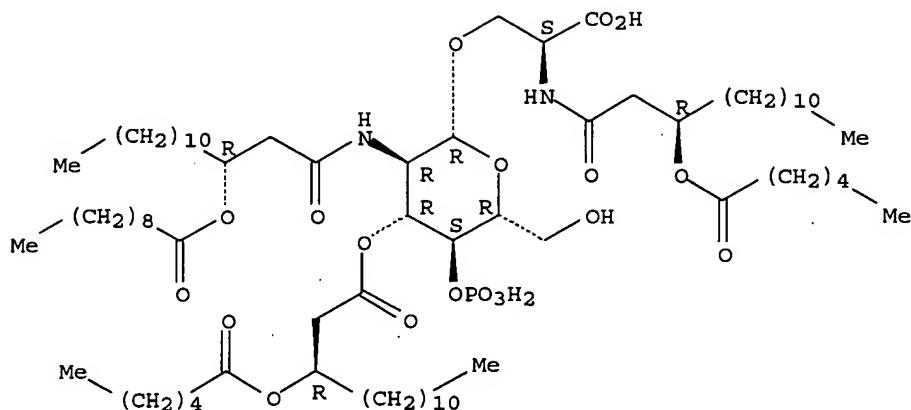
2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 5 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
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 ED Entered STN: 14 Aug 2003  
 CN L-Serine, O-[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-  
 O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

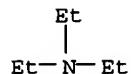
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Absolute stereochemistry.



CM 2

CRN 121-44-8  
CMF C6 H15 N



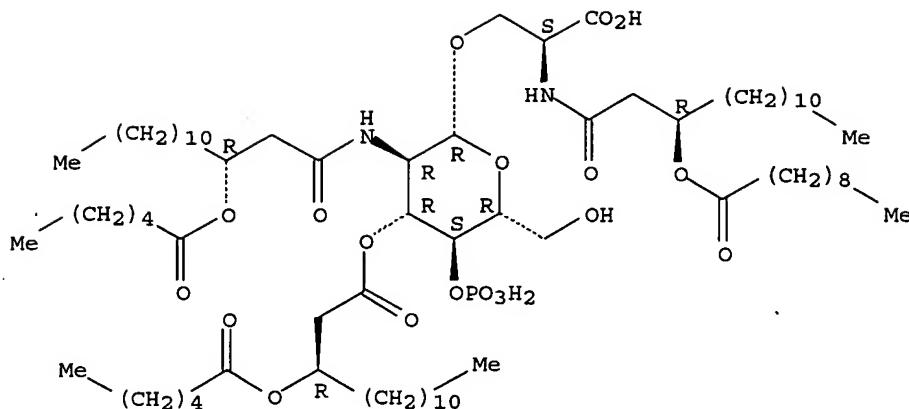
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 6 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
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 ED Entered STN: 14 Aug 2003  
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 [[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

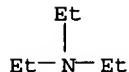
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CMF C73 H135 N2 O19 P

Absolute stereochemistry.



CM 2

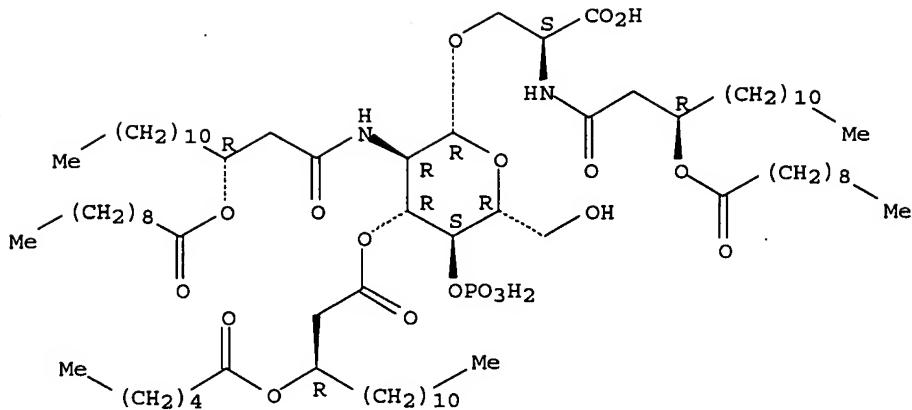
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CMF C6 H15 N1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 7 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 566170-24-9 REGISTRY  
 ED Entered STN: 14 Aug 2003  
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 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

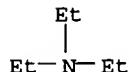
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CRN 362594-90-9  
CMF C77 H143 N2 O19 P

Absolute stereochemistry.



CM 2

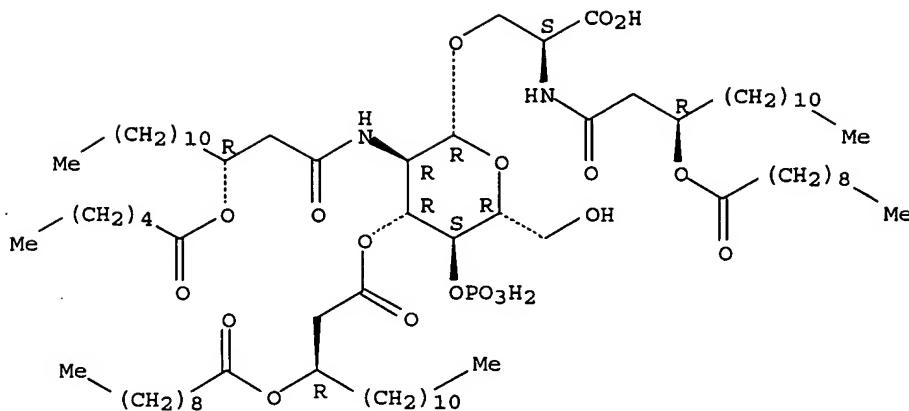
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 8 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 566170-23-8 REGISTRY  
 ED Entered STN: 14 Aug 2003  
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 [[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
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 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

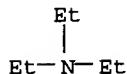
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Absolute stereochemistry.

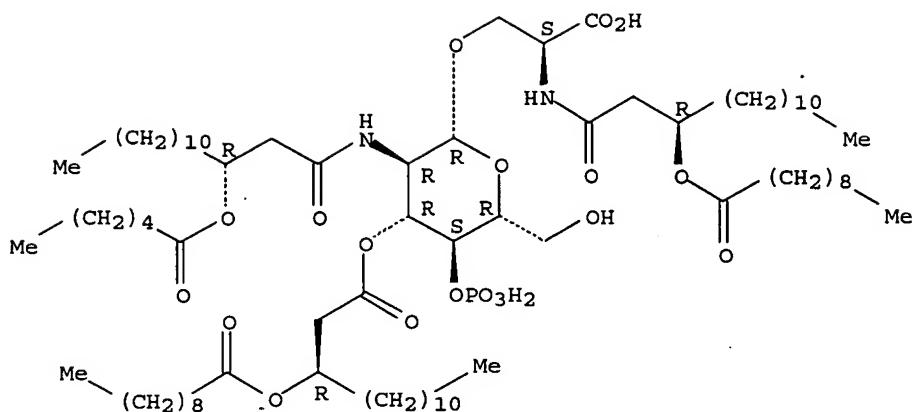


CM 2

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CMF C6 H15 N1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 9 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 566170-22-7 REGISTRY  
 ED Entered STN: 14 Aug 2003  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 565  
 FS STEREOSEARCH  
 DR 854920-84-6  
 MF C77 H143 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 10 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 376394-26-2 REGISTRY

ED Entered STN: 18 Dec 2001

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN RC 526

FS STEREOSEARCH

MF C69 H127 N2 O19 P . C6 H15 N

SR CA

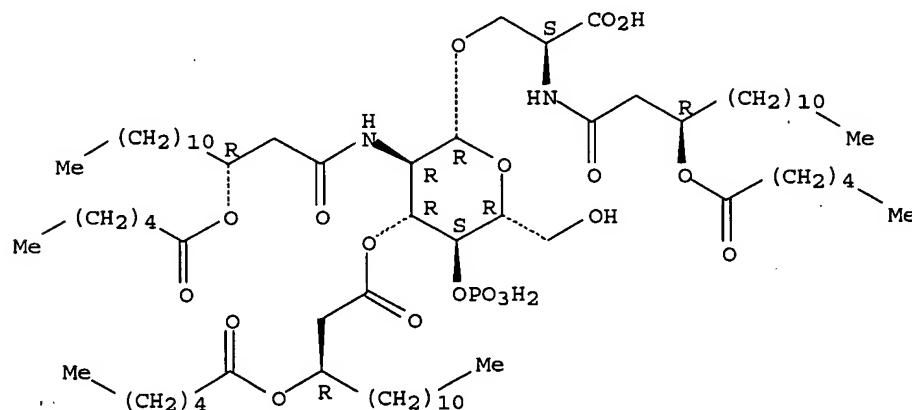
LC STN Files: CA, CAPLUS, IMSDRUGNEWS, IMSRESEARCH, PROUSDDR, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 245515-64-4

CMF C69 H127 N2 O19 P

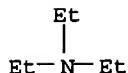
Absolute stereochemistry.



CM 2

CRN 121-44-8

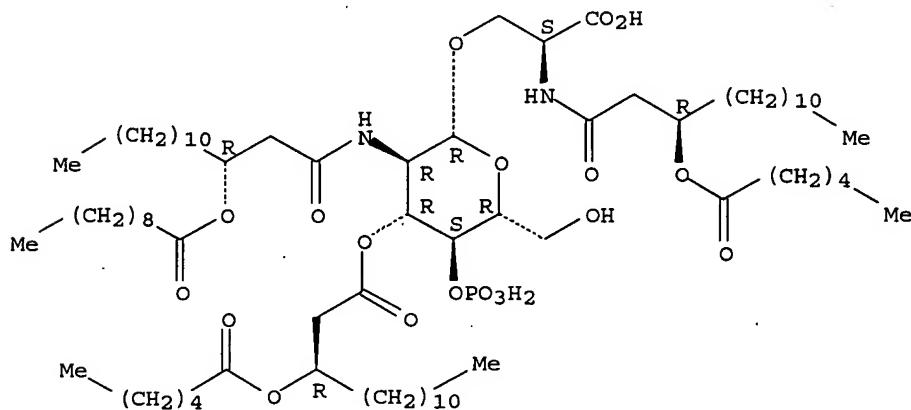
CMF C6 H15 N



4 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 11 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-92-1 REGISTRY  
 ED Entered STN: 17 Oct 2001  
 CN L-Serine, O-[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\beta$ -D-glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN CRX 567  
 FS STEREOSEARCH  
 DR 854921-05-4  
 MF C73 H135 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

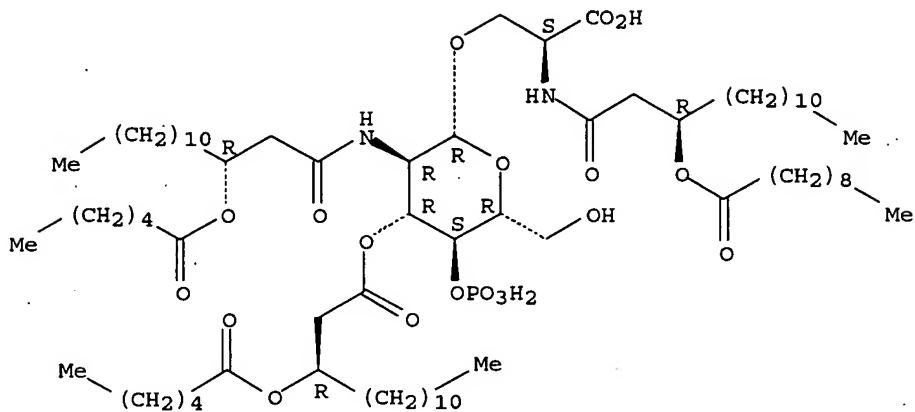


4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 12 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-91-0 REGISTRY  
 ED Entered STN: 17 Oct 2001  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN CRX 568  
 FS STEREOSEARCH  
 DR 854921-04-3  
 MF C73 H135 N2 O19 P  
 CI COM

SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

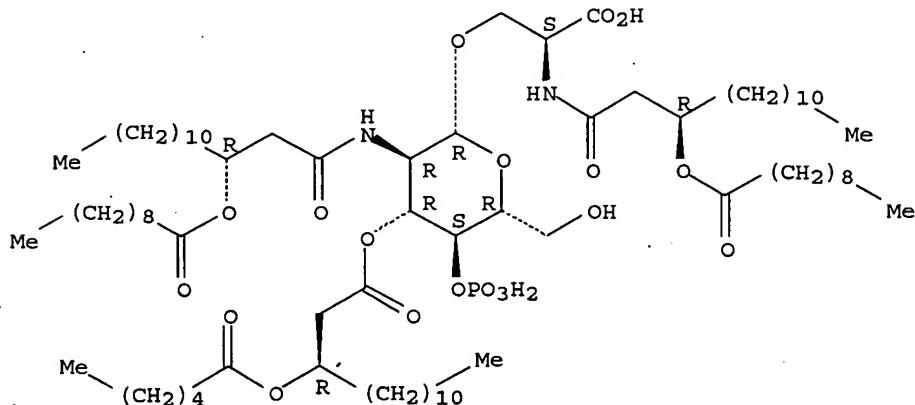
Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 13 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-90-9 REGISTRY  
 ED Entered STN: 17 Oct 2001  
 CN L-Serine, O-[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\beta$ -D-glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN CRX 566  
 FS STEREOSEARCH  
 DR 854918-95-9  
 MF C77 H143 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



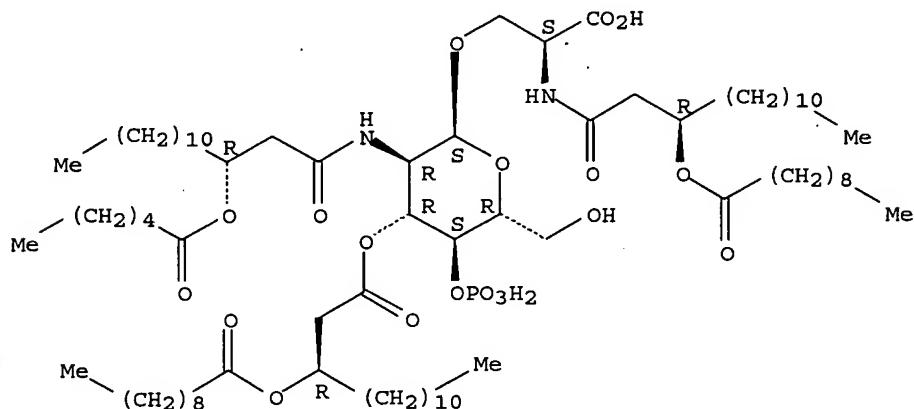
3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 14 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339079-17-3 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[(2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

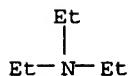
CRN 339079-16-2  
 CMF C77 H143 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
 CMF C6 H15 N

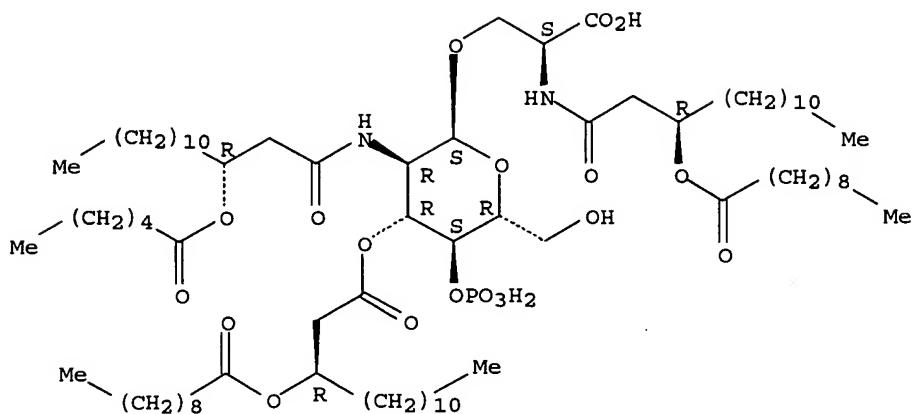


4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 15 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339079-16-2 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[(2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P

CI COM  
SR CA

Absolute stereochemistry.

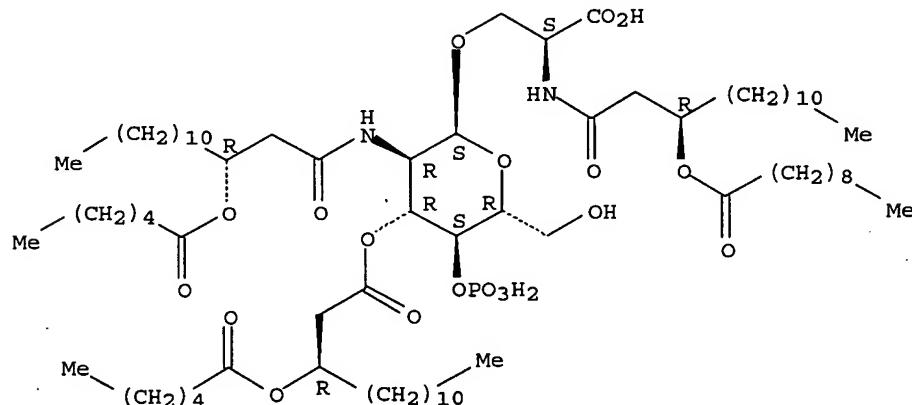


L11 ANSWER 16 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-77-2 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[(2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

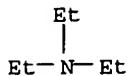
CRN 339078-76-1  
 CMF C73 H135 N2 O19 P

Absolute stereochemistry.



CM 2

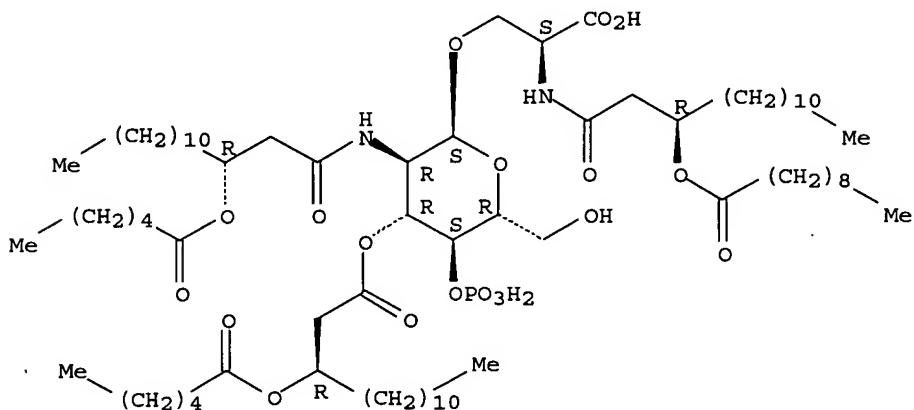
CRN 121-44-8  
CMF C6 H15 N



4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 17 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-76-1 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.

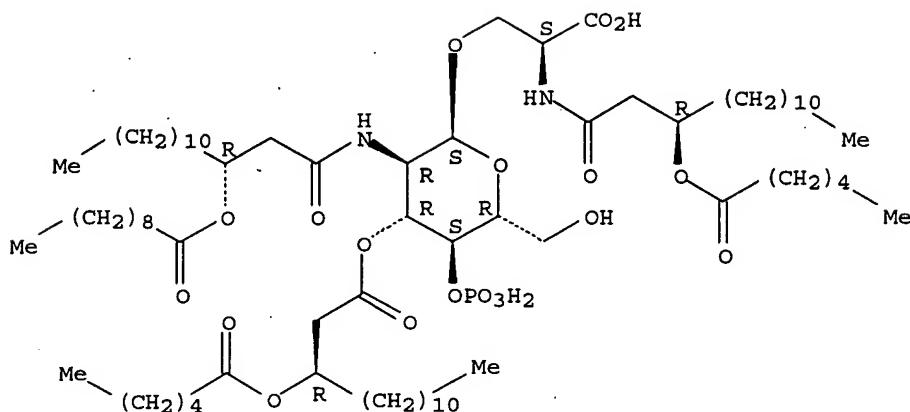


L11 ANSWER 18 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-75-0 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[[(1S)-1-carboxy-2-[[2-deoxy-2-[[[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

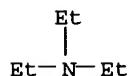
CRN 339078-74-9  
CMF C73 H135 N2 O19 P

Absolute stereochemistry.



CM 2

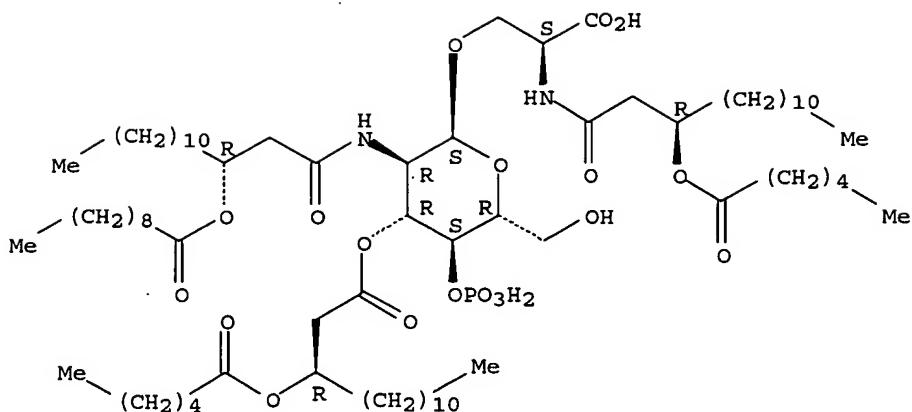
CRN 121-44-8  
CMF C6 H15 N



4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 19 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-74-9 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L11 ANSWER 20 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 339078-73-8 REGISTRY

ED Entered STN: 31 May 2001

CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C73 H135 N2 O19 P . C6 H15 N

SR CA

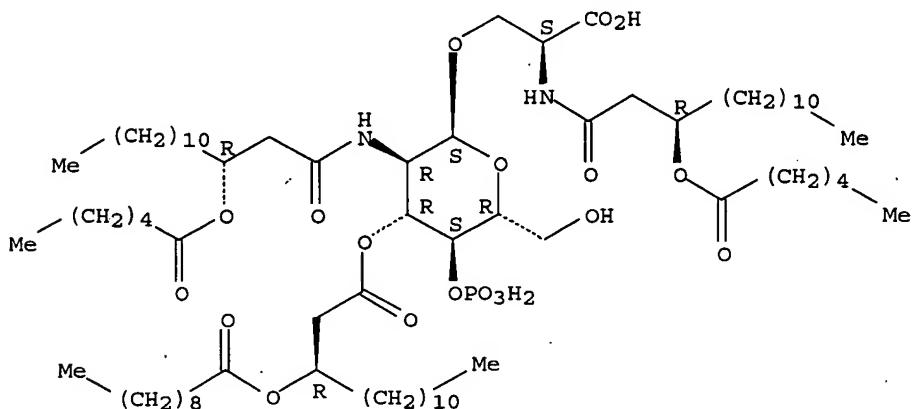
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 339078-72-7

CMF C73 H135 N2 O19 P

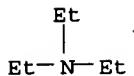
Absolute stereochemistry.



CM 2

CRN 121-44-8

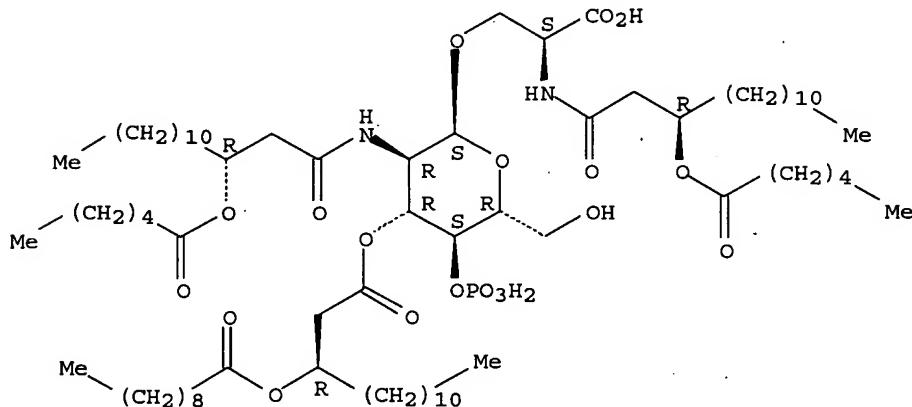
CMF C6 H15 N



3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 21 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-72-7 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C73 H135 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.

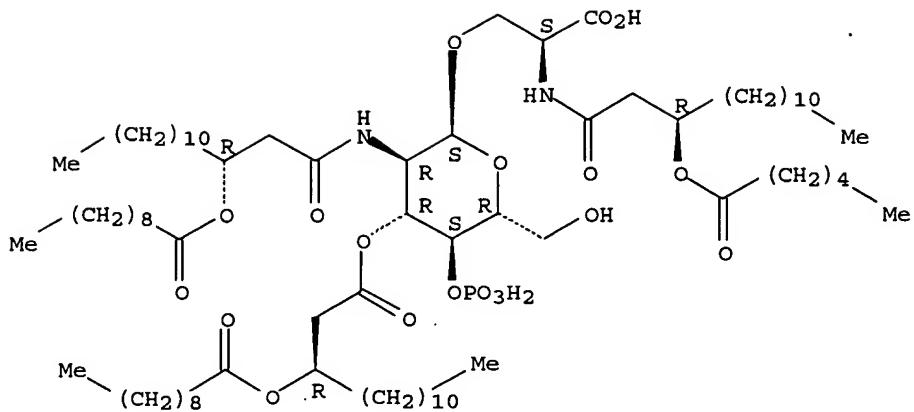


L11 ANSWER 22 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-71-6 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

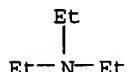
CM 1

CRN 339078-70-5  
 CMF C77 H143 N2 O19 P

Absolute stereochemistry.

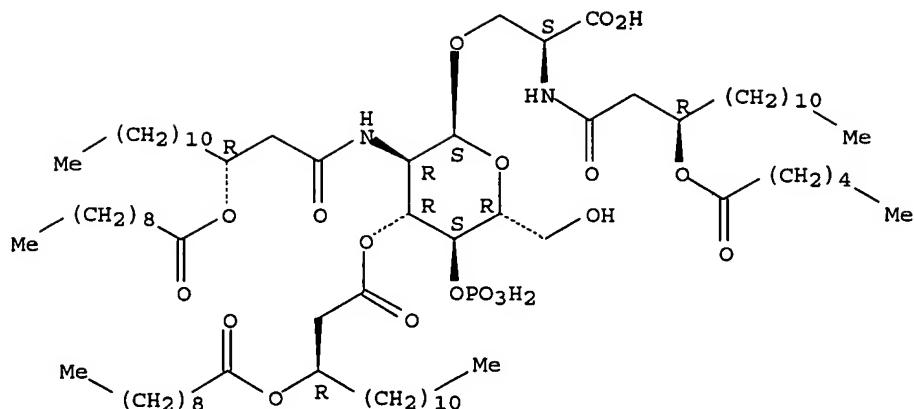


CM 2

CRN 121-44-8  
CMF C6 H15 N4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 23 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-70-5 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L11 ANSWER 24 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 339078-69-2 REGISTRY

ED Entered STN: 31 May 2001

CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxylethyl]amino]-2-oxoethyl)dodecyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C77 H143 N2 O19 P . C6 H15 N

SR CA

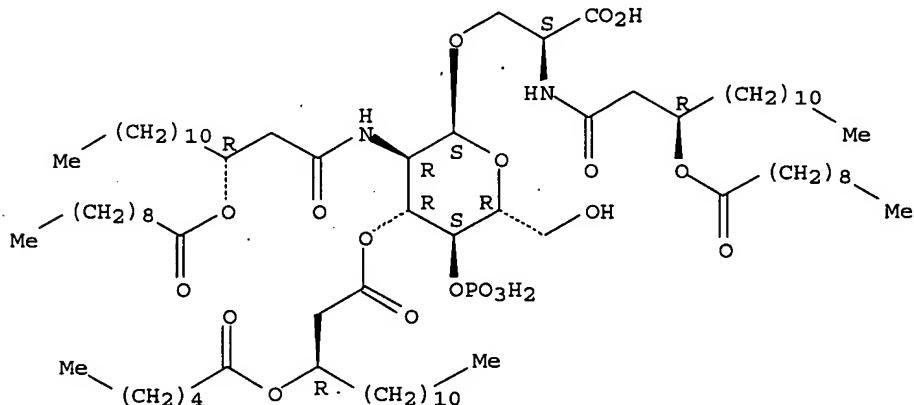
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 339078-68-1

CMF C77 H143 N2 O19 P

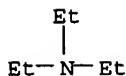
Absolute stereochemistry.



CM 2

CRN 121-44-8

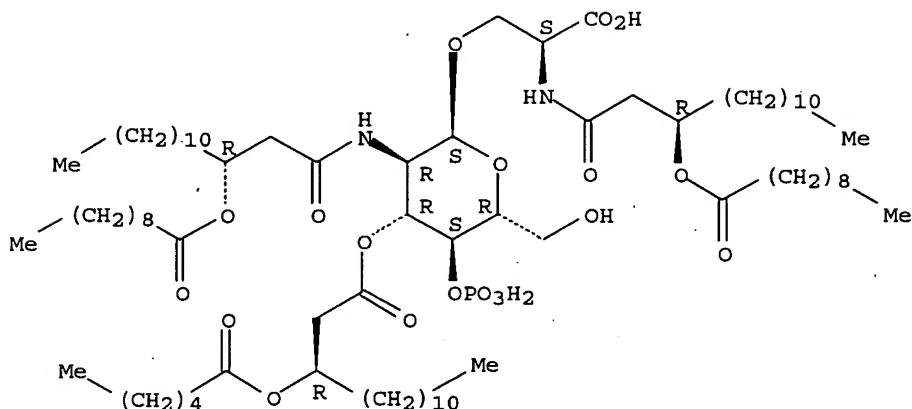
CMF C6 H15 N



3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 25 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-68-1 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H143 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.

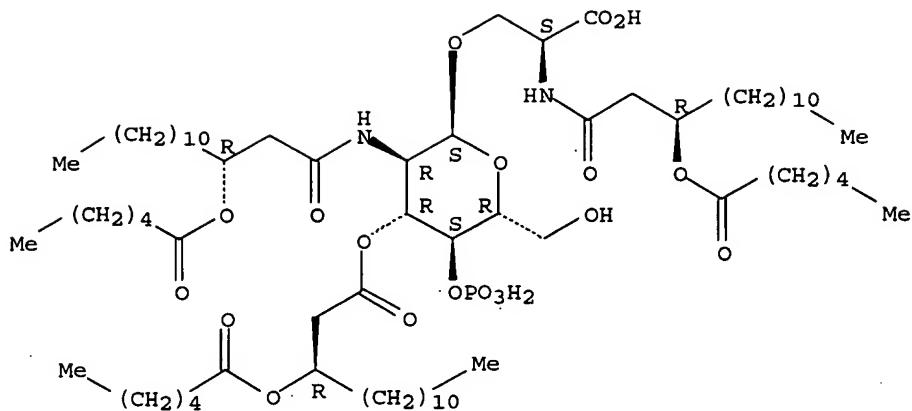


L11 ANSWER 26 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-67-0 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester, compd. with N,N-diethylethanolamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C69 H127 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

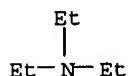
CM 1

CRN 339078-66-9  
 CMF C69 H127 N2 O19 P

Absolute stereochemistry.



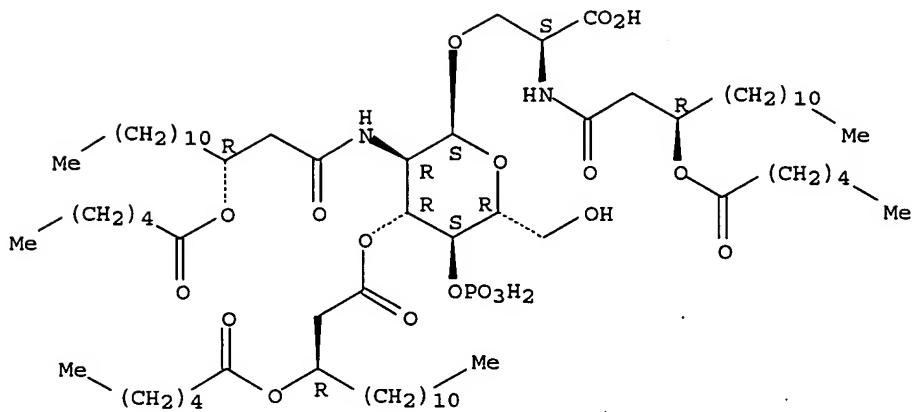
CM 2

CRN 121-44-8  
CMF C6 H15 N

4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 27 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-66-9 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Hexanoic acid, (1R)-1-[[(1S)-1-carboxy-2-[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C69 H127 N2 O19 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L11 ANSWER 28 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 245515-64-4 REGISTRY

ED Entered STN: 29 Oct 1999

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono-beta-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN CRX 526

FS STEREOSEARCH

DR 854916-69-1

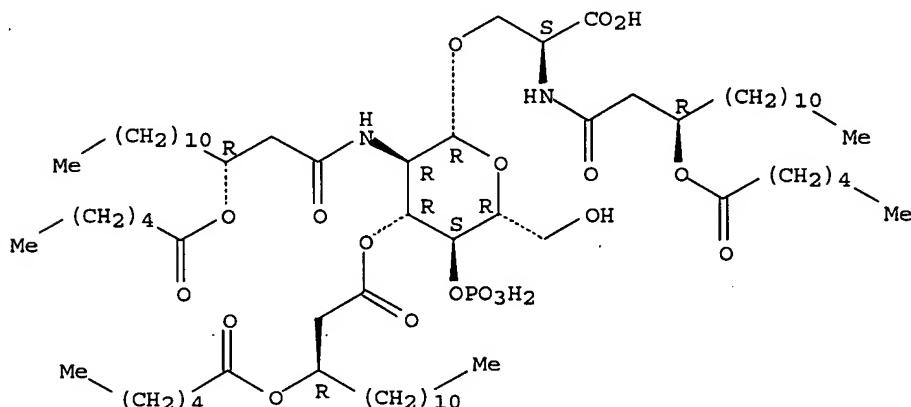
MF C69 H127 N2 O19 P

CI COM

SR CA

LC STN Files: CA, CAPLUS, IMSRESEARCH, PROUSDDR, TOXCENTER

Absolute stereochemistry.



6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 29 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 216014-29-8 REGISTRY

ED Entered STN: 23 Dec 1998

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]amino]-4-O-phosphono-beta-D-

glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]-, compd. with  
N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

## OTHER NAMES:

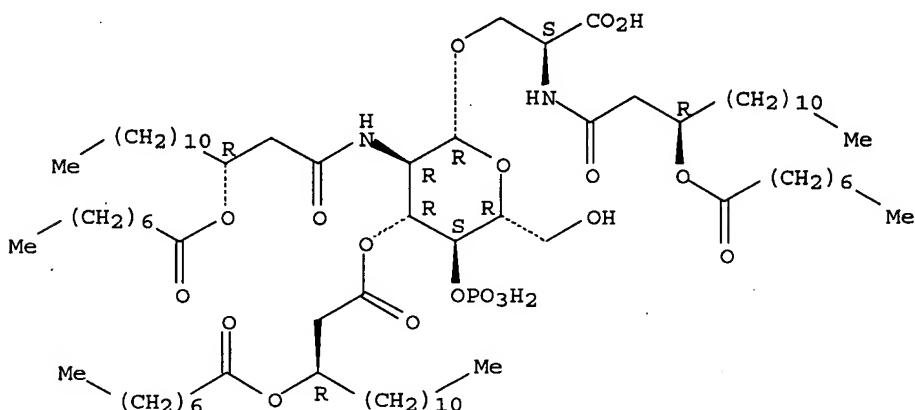
CN RC 555  
FS STEREOSEARCH  
DR 376394-28-4  
MF C75 H139 N2 O19 P . C6 H15 N  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 216014-28-7

CMF C75 H139 N2 O19 P

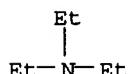
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



8 REFERENCES IN FILE CA (1907 TO DATE)

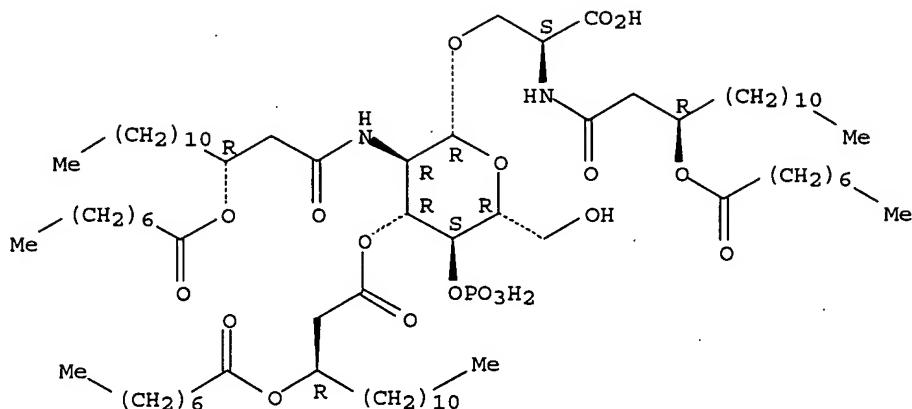
8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 30 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-28-7 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)

## OTHER NAMES:

CN CRX 555  
FS STEREOSEARCH  
DR 854917-96-7  
MF C75 H139 N2 O19 P  
CI COM  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



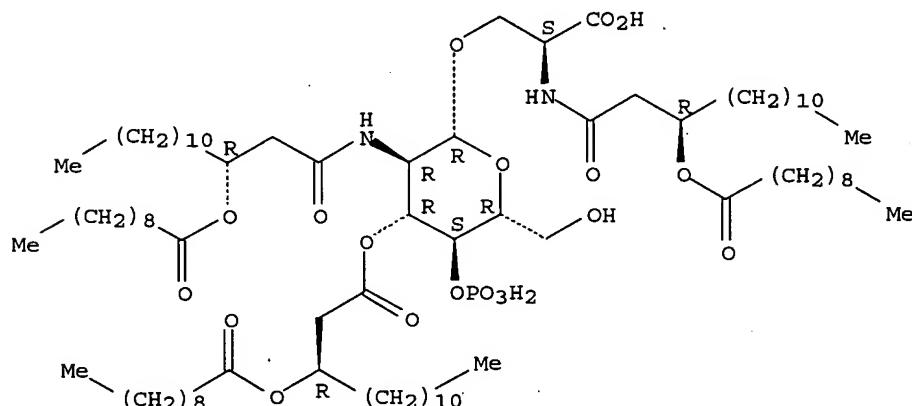
4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 31 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-15-2 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN RC 527  
 FS STEREOSEARCH  
 DR 376394-30-8  
 MF C81 H151 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, IMSDRUGNEWS, IMSRESEARCH, PROUSDDR, SYNTHLINE,  
 TOXCENTER, USPAT2, USPATFULL

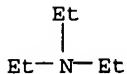
CM 1

CRN 216014-14-1  
 CMF C81 H151 N2 O19 P

Absolute stereochemistry.



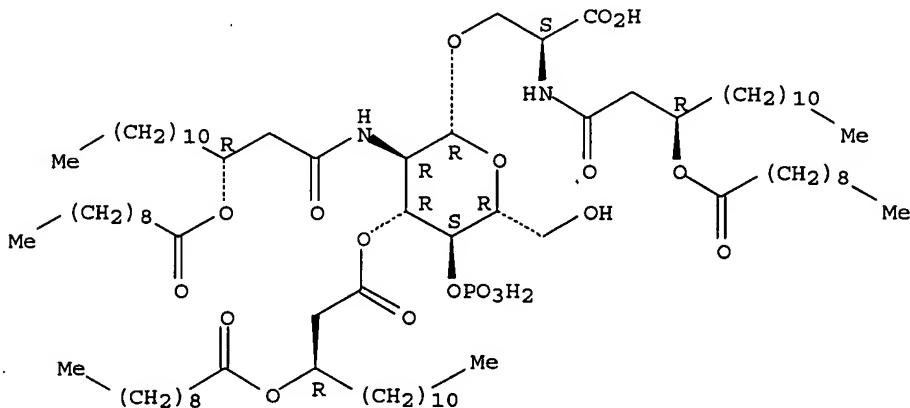
CM 2

CRN 121-44-8  
CMF C6 H15 N

11 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 32 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-14-1 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 527  
 FS STEREOSEARCH  
 DR 854918-07-3  
 MF C81 H151 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, IMSRESEARCH, TOXCENTER

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

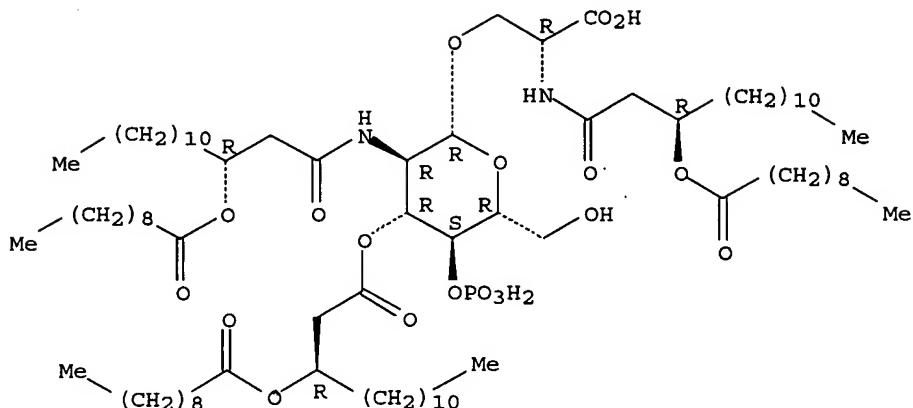
L11 ANSWER 33 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-06-1 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN D-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H151 N2 O19 P . C6 H15 N

SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

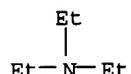
CRN 216014-05-0  
 CMF C81 H151 N2 O19 P

Absolute stereochemistry.



CM 2

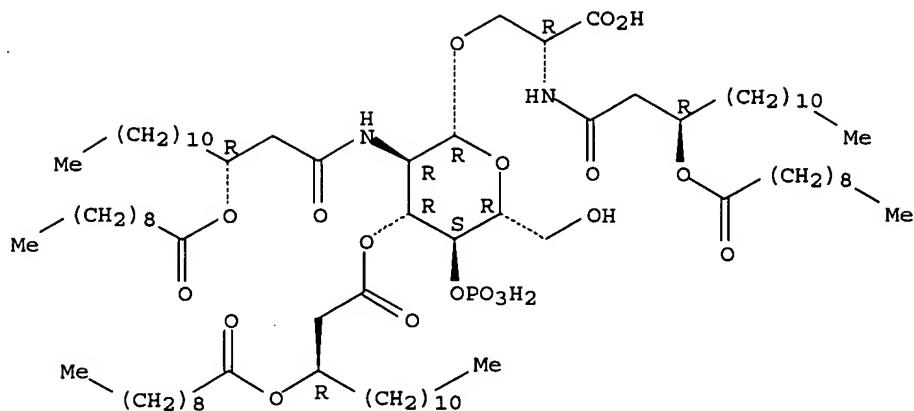
CRN 121-44-8  
 CMF C6 H15 N



6 REFERENCES IN FILE CA (1907 TO DATE)  
 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 34 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-05-0 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN D-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono-beta-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H151 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 35 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN

RN 216013-88-6 REGISTRY

ED Entered STN: 23 Dec 1998

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN RC 560

FS STEREOSEARCH

DR 376394-32-0

MF C87 H163 N2 O19 P . C6 H15 N

SR CA

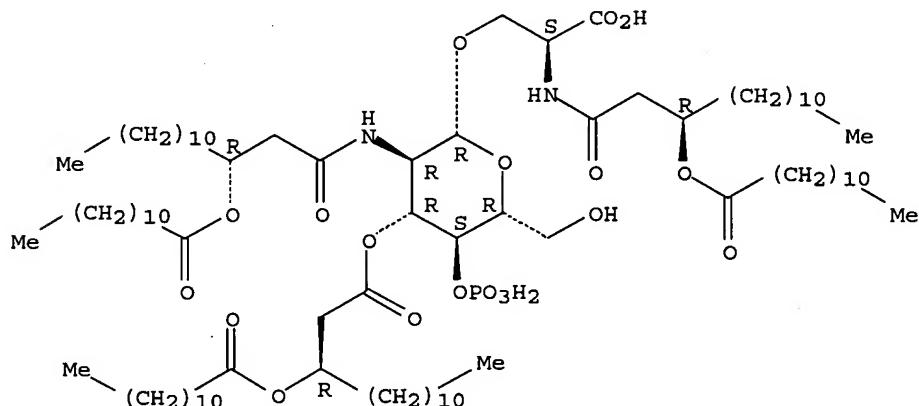
LC STN Files: CA, CAPLUS, PROUSDDR, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 216013-87-5

CMF C87 H163 N2 O19 P

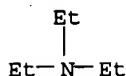
Absolute stereochemistry.



CM 2

CRN 121-44-8

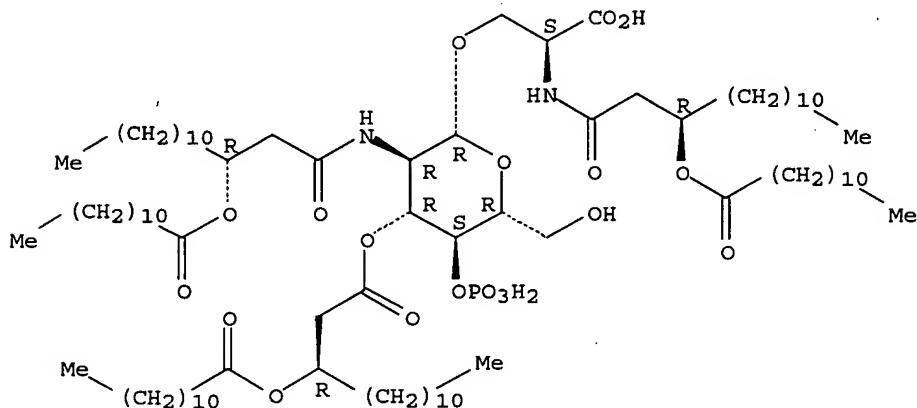
CMF C6 H15 N



8 REFERENCES IN FILE CA (1907 TO DATE)  
 8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 36 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216013-87-5 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 560  
 FS STEREOSEARCH  
 DR 854918-50-6  
 MF C87 H163 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, PROUSDDR, TOXCENTER

Absolute stereochemistry.



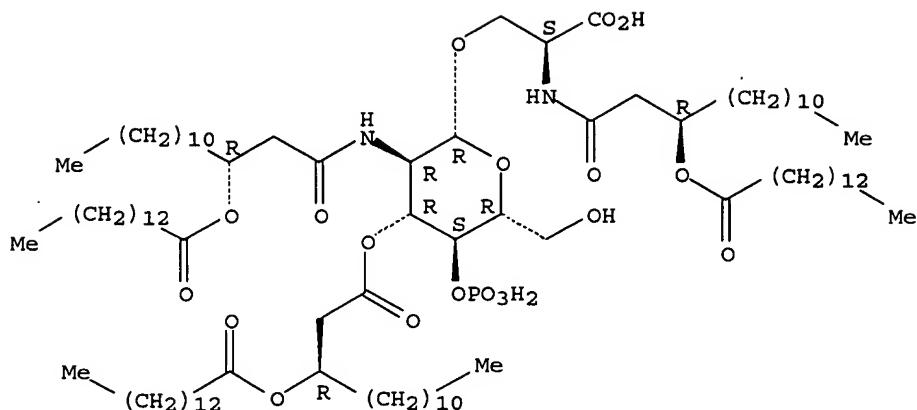
4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 37 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216013-82-0 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-  
 $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-  
 compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN RC 512  
 FS STEREOSEARCH  
 DR 376394-46-6  
 MF C93 H175 N2 O19 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, PROUSDDR, TOXCENTER, USPAT2, USPATFULL

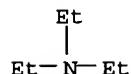
CM 1

CRN 216013-81-9  
CMF C93 H175 N2 O19 P

Absolute stereochemistry.

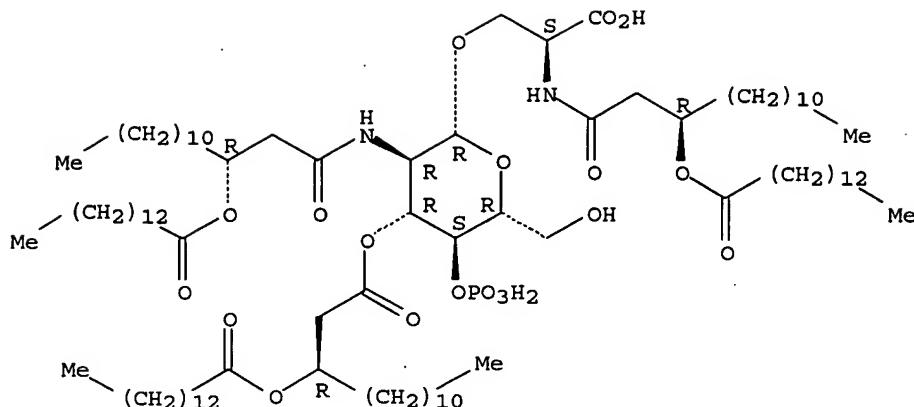


CM 2

CRN 121-44-8  
CMF C6 H15 N8 REFERENCES IN FILE CA (1907 TO DATE)  
8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

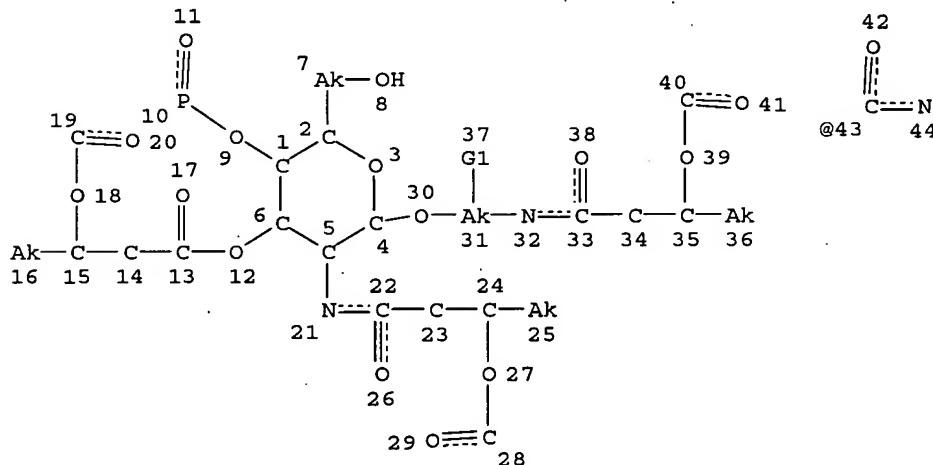
L11 ANSWER 38 OF 38 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216013-81-9 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-β-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN CRX 512  
 FS STEREOSEARCH  
 DR 854918-92-6  
 MF C93 H175 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d que sta 116  
 L5 STR



VAR G1=OH/CO2H/43

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 44

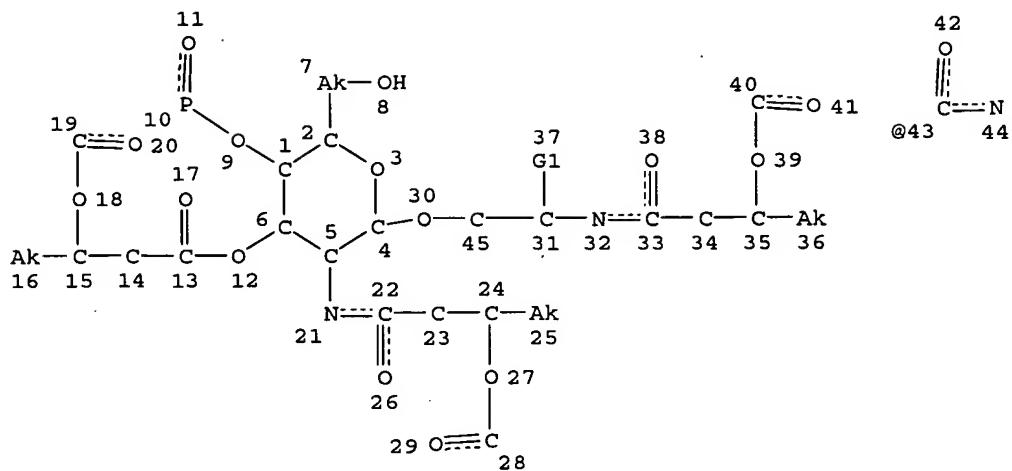
STEREO ATTRIBUTES: NONE

L7 125 SEA FILE=REGISTRY SSS FUL L5

L9 14 SEA FILE=REGISTRY ABB=ON PLU=ON C69H127N2O19P OR C75H139N2O19P OR C81H151N2O19P OR C87H163N2O19P

L10 26 SEA FILE=REGISTRY ABB=ON PLU=ON C93H175N2O19P OR C77H143N2O19P OR C73H135N2O19P

L11 38 SEA FILE=REGISTRY ABB=ON PLU=ON (L9 OR L10) AND L7  
 L12 STR



VAR G1=OH/CO2H/43

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE

L14 63 SEA FILE=REGISTRY SUB=L7 SSS FUL L12

L15 38 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND L11

L16 25 SEA FILE=REGISTRY ABB=ON PLU=ON L14 NOT L15

=&gt; d ide l16 tot

L16 ANSWER 1 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN

RN 854923-92-5 REGISTRY

ED Entered STN: 13 Jul 2005

CN INDEX NAME NOT YET ASSIGNED

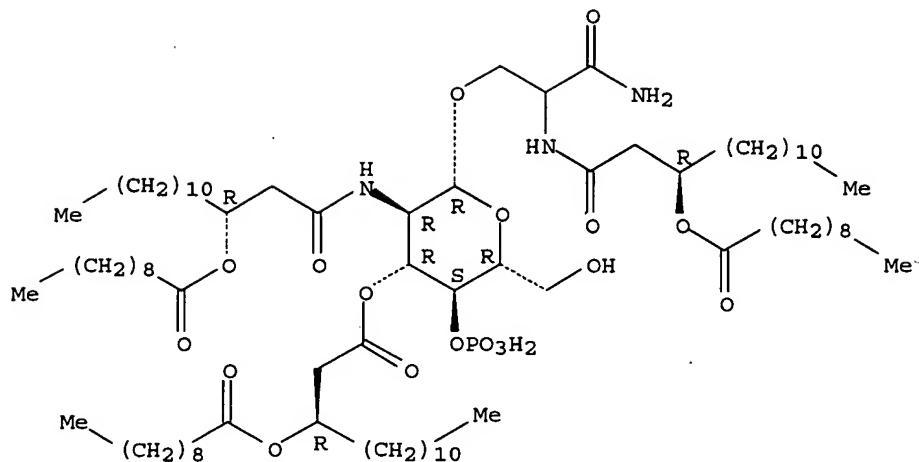
FS STEREOSEARCH

MF C81 H152 N3 O18 P

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

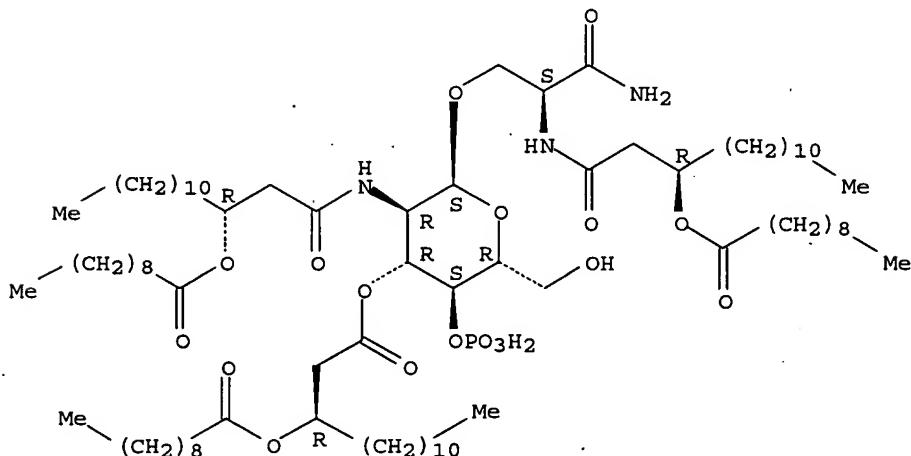
L16 ANSWER 2 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 525604-83-5 REGISTRY  
 ED Entered STN: 05 Jun 2003  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H152 N3 O18 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 525604-82-4

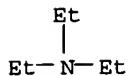
CMF C81 H152 N3 O18 P

Absolute stereochemistry.



CM 2

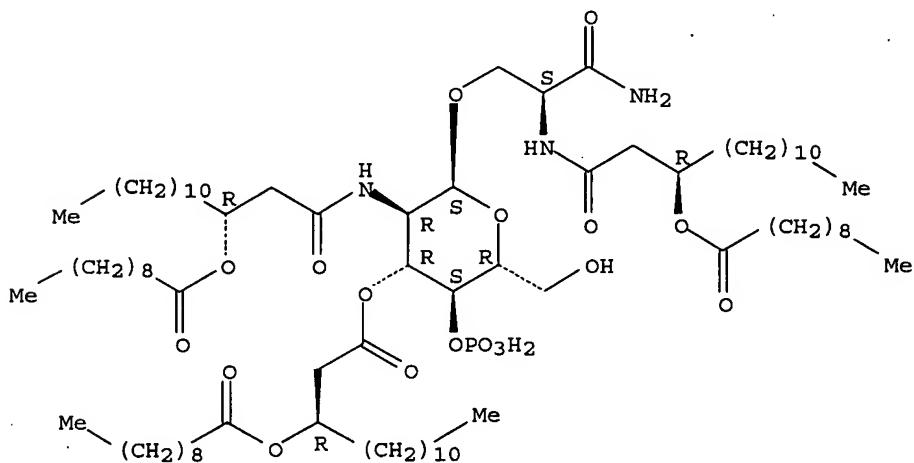
CRN 121-44-8  
CMF C6 H15 N



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

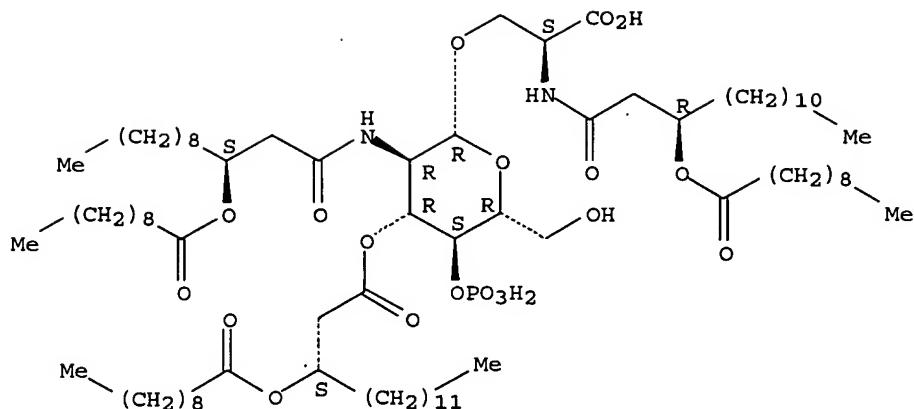
L16 ANSWER 3 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 525604-82-4 REGISTRY  
 ED Entered STN: 05 Jun 2003  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H152 N3 O18 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L16 ANSWER 4 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 521333-28-8 REGISTRY  
 ED Entered STN: 28 May 2003  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]dodecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]pentadecyl]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C80 H149 N2 O19 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 5 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN

RN 367273-91-4 REGISTRY

ED Entered STN: 06 Nov 2001

CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxohexyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C69 H128 N3 O18 P . C6 H15 N

SR CA

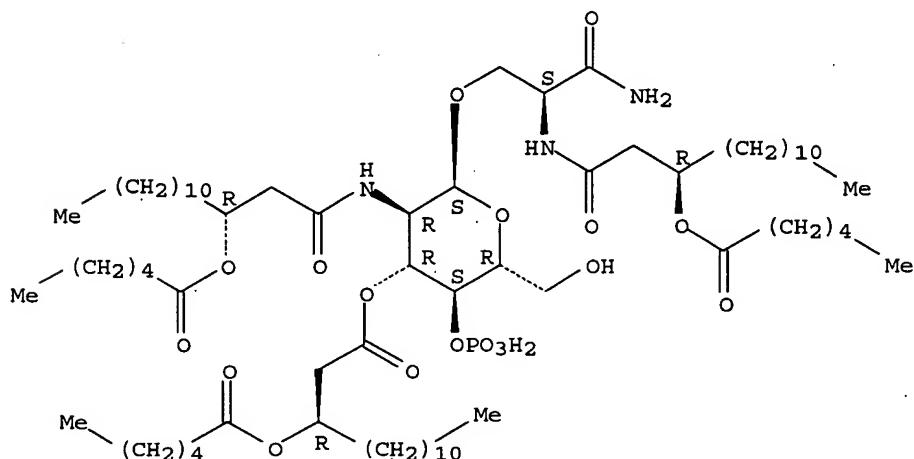
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 367273-90-3

CMF C69 H128 N3 O18 P

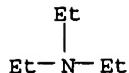
Absolute stereochemistry.



CM 2

CRN 121-44-8

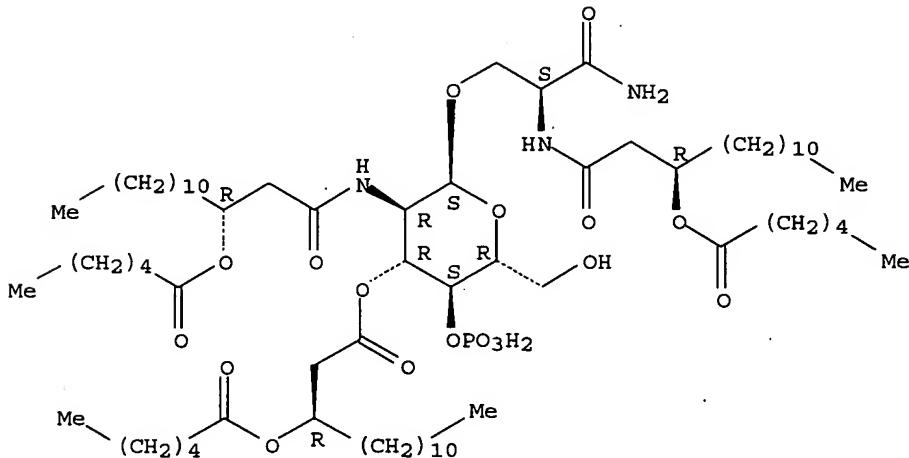
CMF C6 H15 N



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

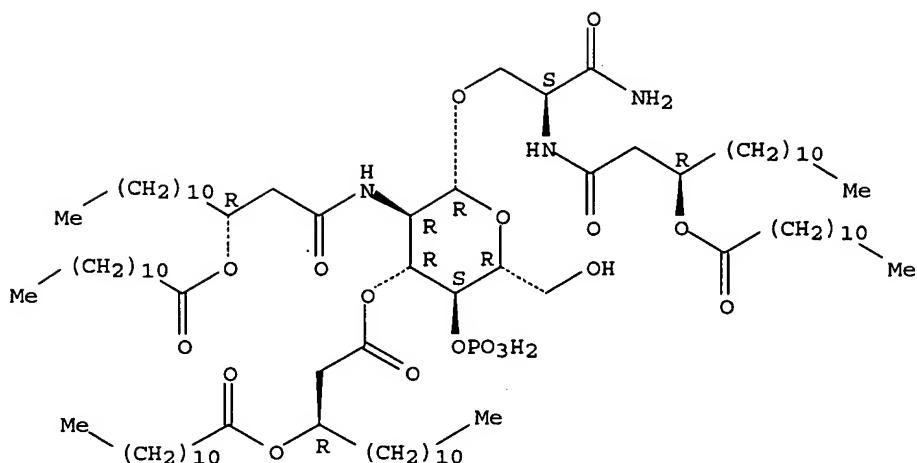
L16 ANSWER 6 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 367273-90-3 REGISTRY  
 ED Entered STN: 06 Nov 2001  
 CN Hexanoic acid, (1R)-1-[2-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C69 H128 N3 O18 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L16 ANSWER 7 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-89-6 REGISTRY  
 ED Entered STN: 17 Oct 2001  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxododecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C87 H164 N3 O18 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

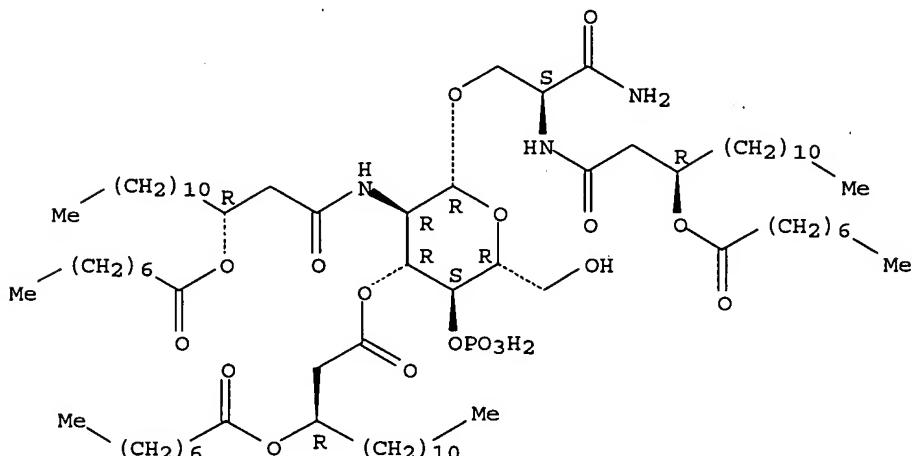
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE).  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 8 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-88-5 REGISTRY  
 ED Entered STN: 17 Oct 2001  
 CN Tetradecanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxooctyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxooctyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C75 H140 N3 O18 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

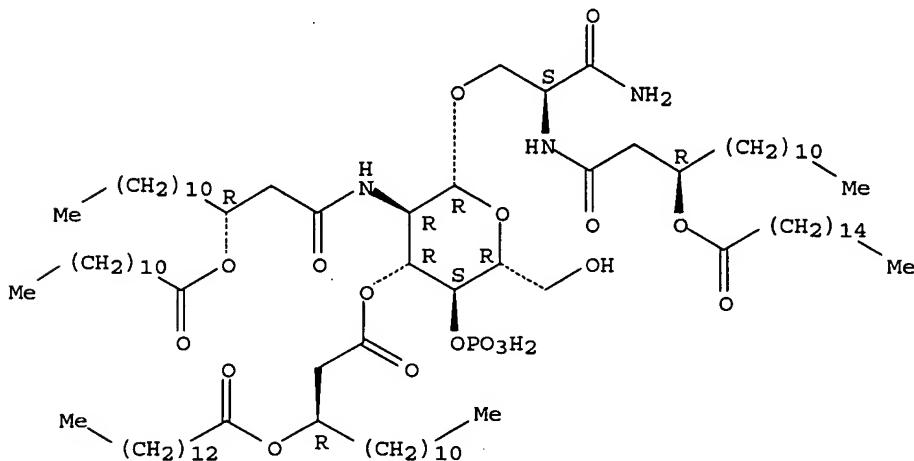


1 REFERENCES IN FILE CA (1907 TO DATE).  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 9 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 362594-87-4 REGISTRY  
 ED Entered STN: 17 Oct 2001

CN Tetradeceanamide, N-[(1S)-2-amino-1-[[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxohexadecyl)oxy]-, (3R)-, (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C93 H176 N3 O18 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



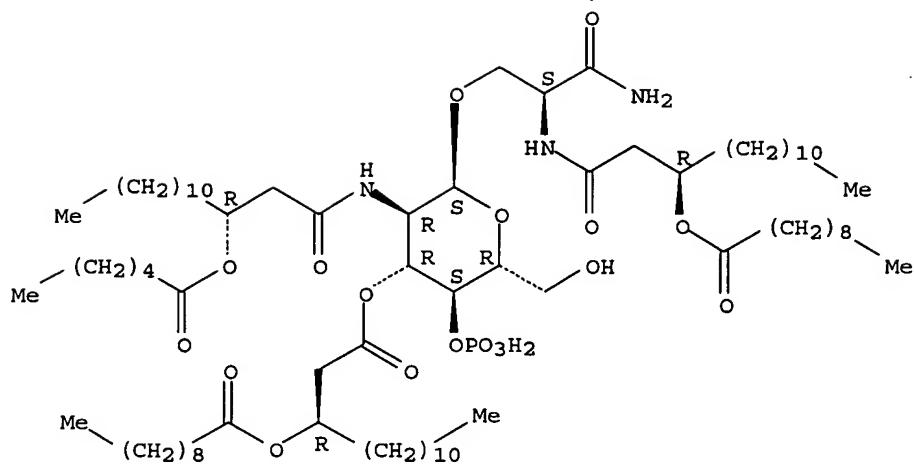
1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 10 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-61-4 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Tetradeceanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H144 N3 O18 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

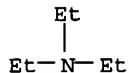
CM 1

CRN 339078-60-3  
 CMF C77 H144 N3 O18 P

Absolute stereochemistry.

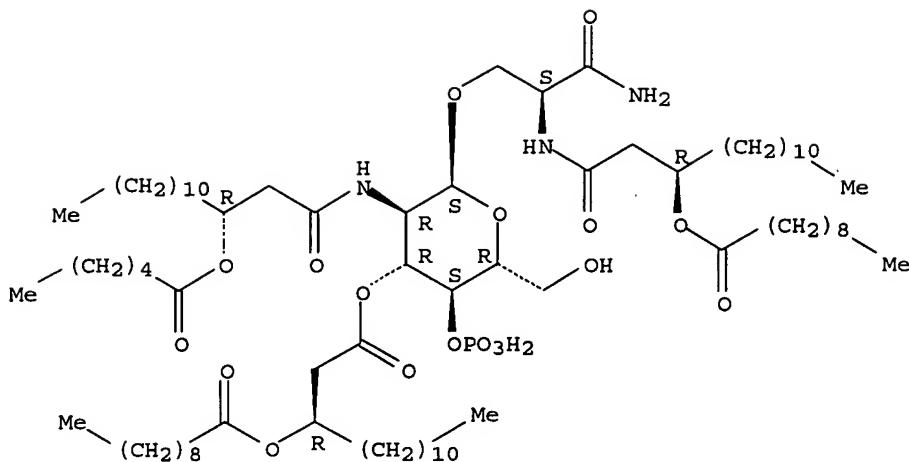


CM 2

CRN 121-44-8  
CMF C6 H15 N3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 11 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 339078-60-3 REGISTRY  
 ED Entered STN: 31 May 2001  
 CN Decanoic acid, (1R)-1-[2-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\alpha$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C77 H144 N3 O18 P  
 CI COM  
 SR CA

Absolute stereochemistry.



L16 ANSWER 12 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN

RN 339078-59-0 REGISTRY

ED Entered STN: 31 May 2001

CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxohexyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C69 H128 N3 O18 P . C6 H15 N

SR CA

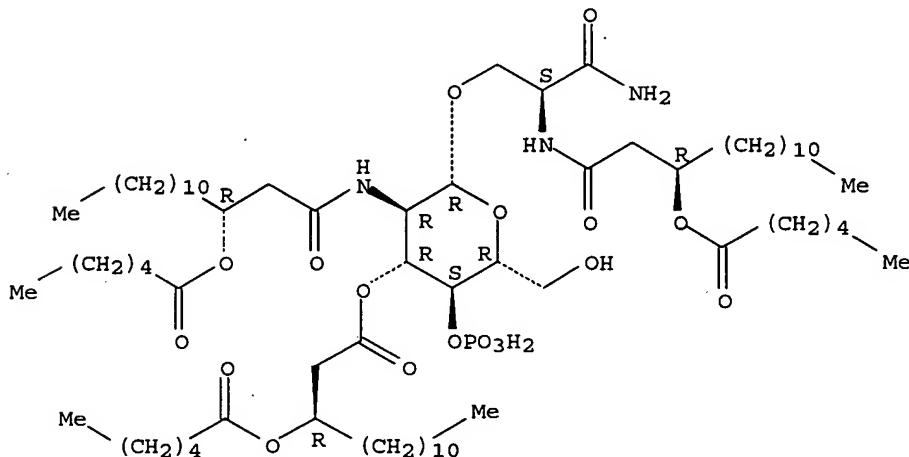
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 245515-66-6

CMF C69 H128 N3 O18 P

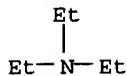
Absolute stereochemistry.



CM 2

CRN 121-44-8

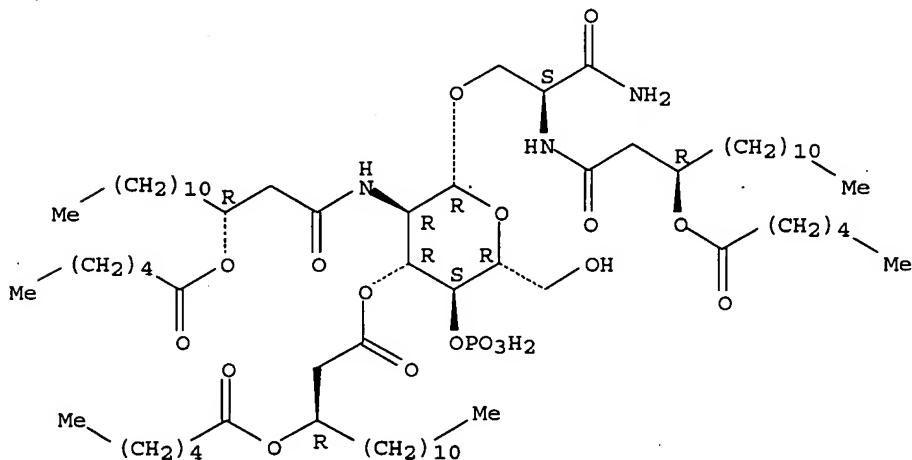
CMF C6 H15 N



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 13 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 245515-66-6 REGISTRY  
 ED Entered STN: 29 Oct 1999  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxohexyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C69 H128 N3 O18 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

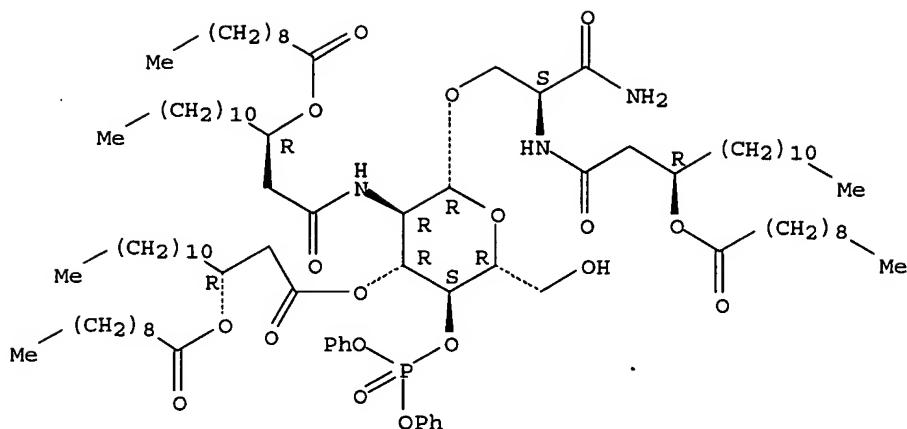
Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 14 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-85-6 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-4-O-(diphenoxylphosphoryl)-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C93 H160 N3 O18 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6 REFERENCES IN FILE CA (1907 TO DATE)  
 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

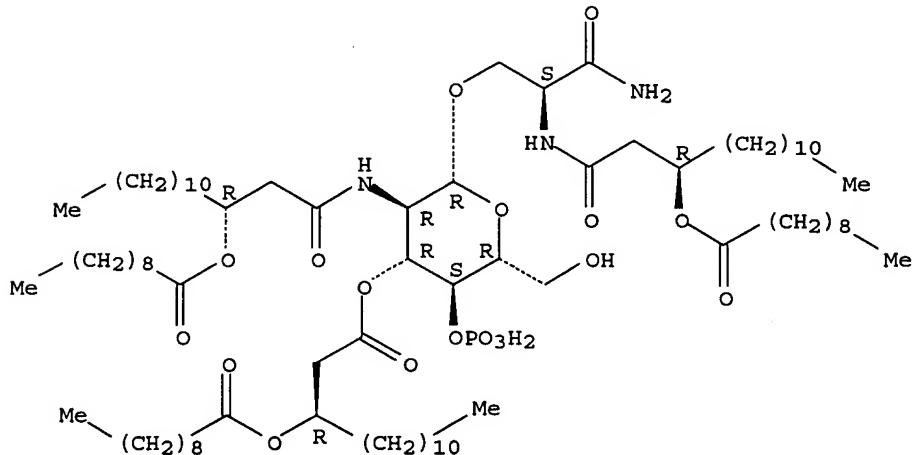
L16 ANSWER 15 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-82-3 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H152 N3 O18 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, PROUSDDR, SYNTHLINE, TOXCENTER, USPATFULL

CM 1

CRN 216014-81-2

CMF C81 H152 N3 O18 P .

Absolute stereochemistry.

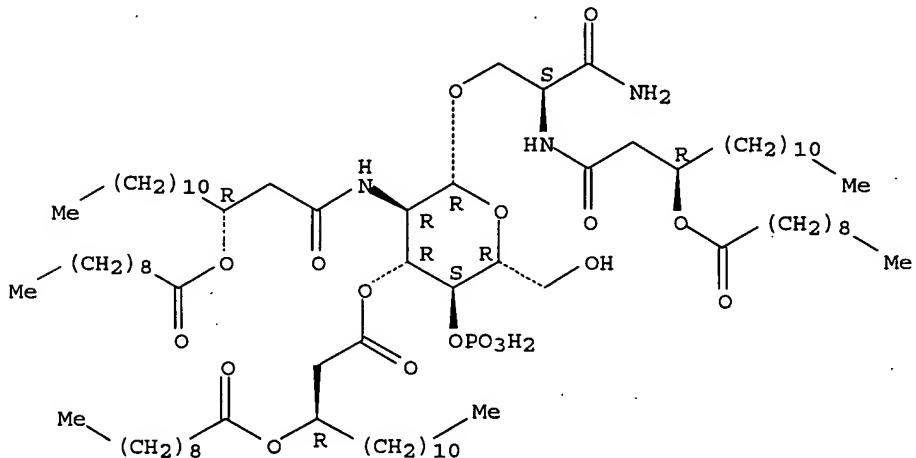


CM 2

CRN 121-44-8  
CMF C6 H15 N6 REFERENCES IN FILE CA (1907 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 16 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-81-2 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxodecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C81 H152 N3 O18 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

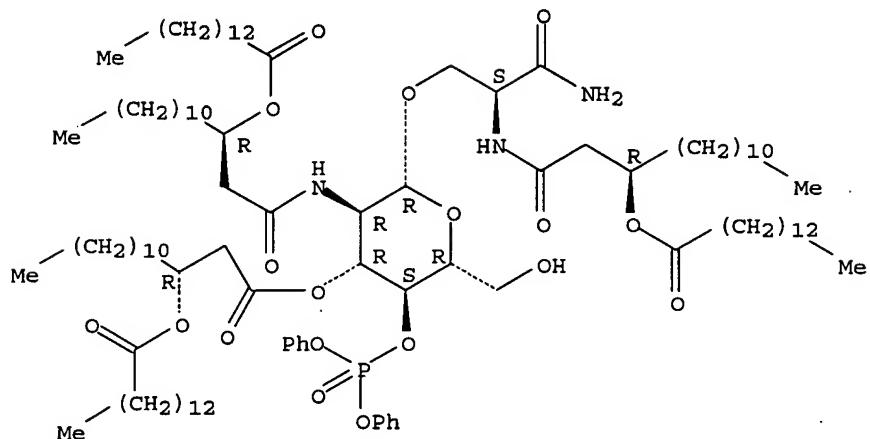
Absolute stereochemistry.

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 17 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-80-1 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-4-O-(diphenoxylphosphoryl)-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxotetradecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C105 H184 N3 O18 P

SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

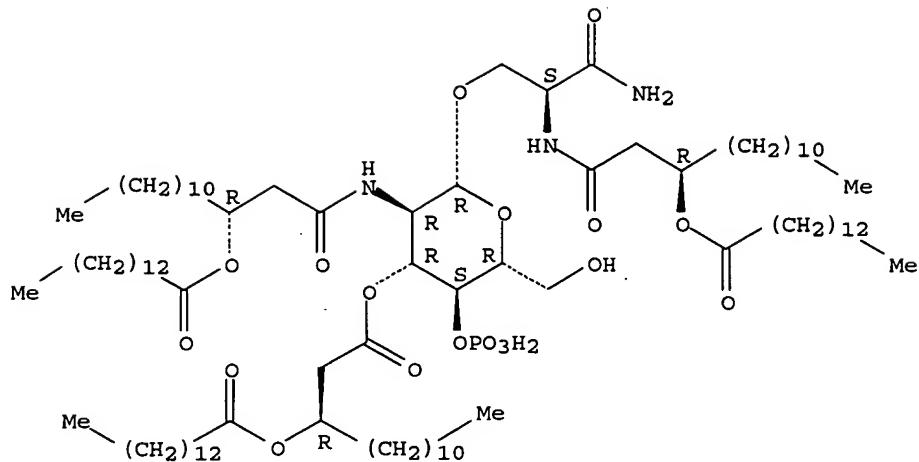
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 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 18 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-76-5 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradecanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-β-D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxotetradecyl)oxy]-, (3R)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C93 H176 N3 O18 P . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

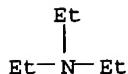
CM 1

CRN 216014-75-4  
 CMF C93 H176 N3 O18 P

Absolute stereochemistry.

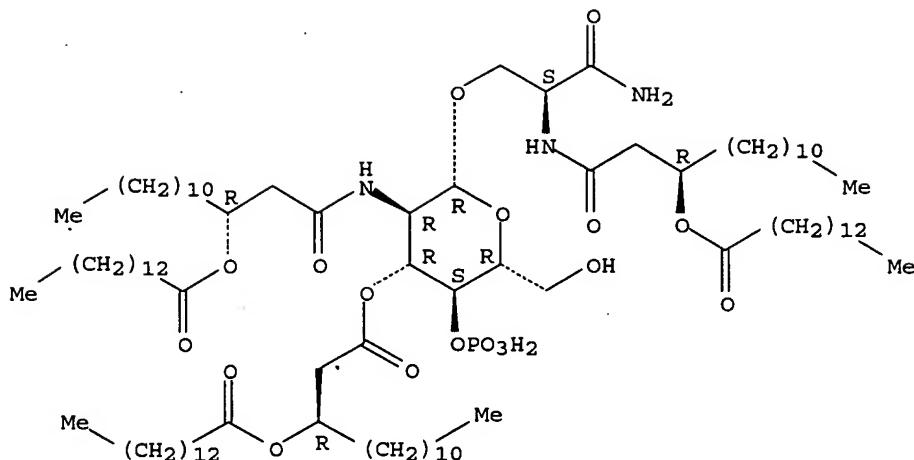


CM 2

CRN 121-44-8  
CMF C6 H15 N5 REFERENCES IN FILE CA (1907 TO DATE)  
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 19 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-75-4 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxotetradecyl)oxy]-, (3R)-(9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C93 H176 N3 O18 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 20 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN

RN 216014-37-8 REGISTRY

ED Entered STN: 23 Dec 1998

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN RC 554

FS STEREOSEARCH

DR 376394-27-3

MF C72 H133 N2 O19 P . C6 H15 N

SR CA

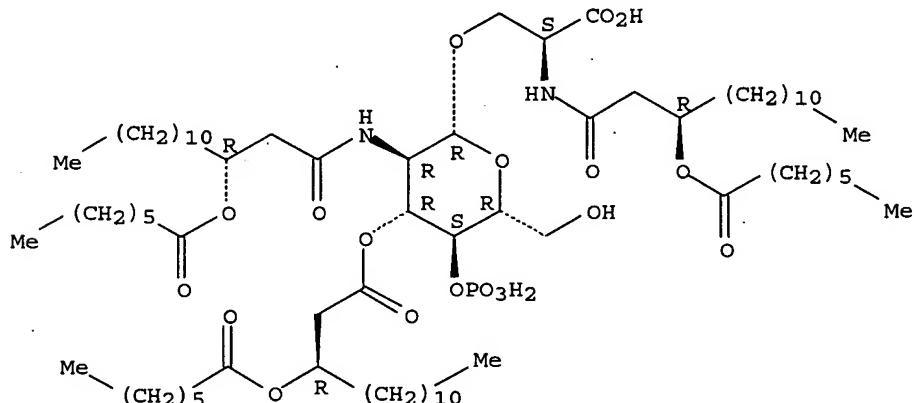
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 216014-36-7

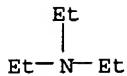
CMF C72 H133 N2 O19 P

Absolute stereochemistry.



CM 2

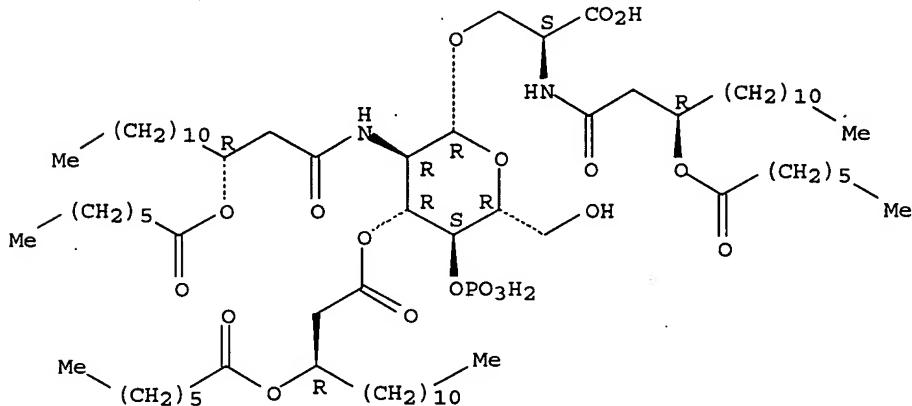
CRN 121-44-8  
CMF C6 H15 N



9 REFERENCES IN FILE CA (1907 TO DATE)  
9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 21 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-36-7 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 554  
 FS STEREOSEARCH  
 DR 854917-93-4  
 MF C72 H133 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

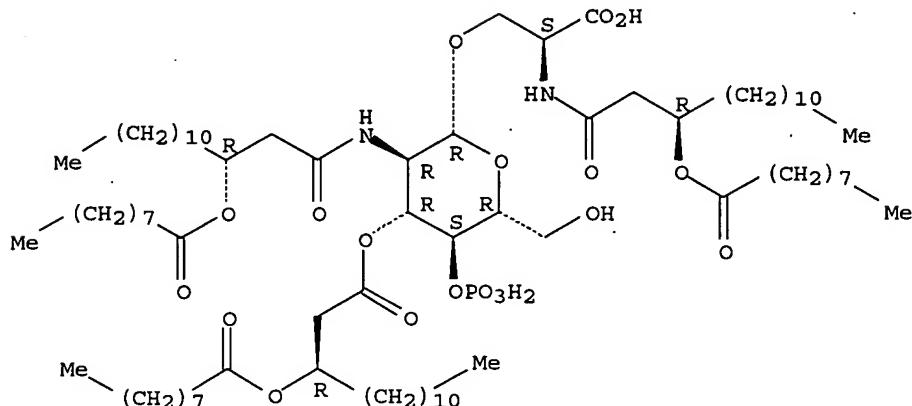
L16 ANSWER 22 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-21-0 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]-, compd. with  
 N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN RC 537  
 FS STEREOSEARCH  
 DR 376394-29-5  
 MF C78 H145 N2 O19 P . C6 H15 N

SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

CM 1

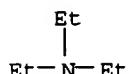
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 CMF C78 H145 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
 CMF C6 H15 N



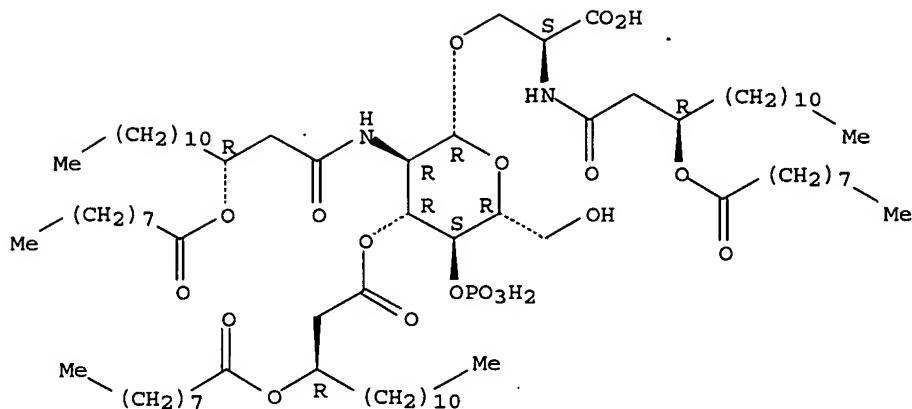
8 REFERENCES IN FILE CA (1907 TO DATE)  
 8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 23 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216014-20-9 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxononyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)

OTHER NAMES:

CN CRX 537  
 FS STEREOSEARCH  
 DR 854918-03-9  
 MF C78 H145 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 24 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN

RN 216013-97-7 REGISTRY

ED Entered STN: 23 Dec 1998

CN L-Serine, O- [2-deoxy-3-O- [(3R)-1-oxo-3- [(1-oxoundecyl)oxy]tetradecyl]-2- [[(3R)-1-oxo-3- [(1-oxoundecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N- [(3R)-1-oxo-3- [(1-oxoundecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN RC 538

FS STEREOSEARCH

DR 376394-31-9

MF C84 H157 N2 O19 P . C6 H15 N

SR CA

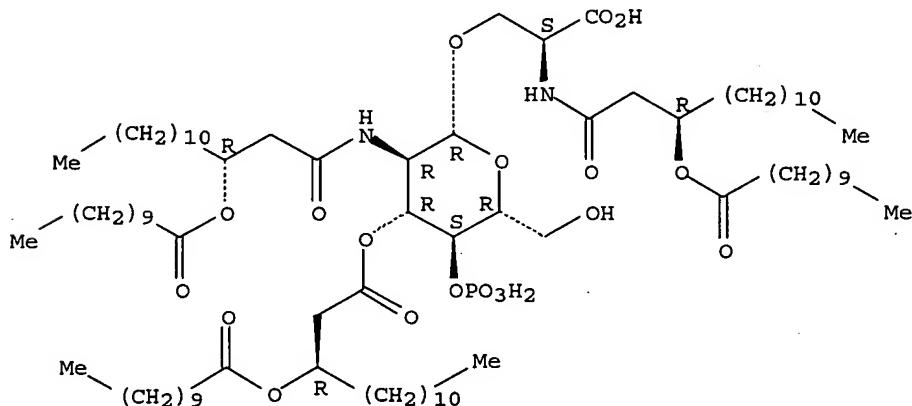
LC STN Files: CA, CAPLUS, PROUSDDR, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 216013-96-6

CMF C84 H157 N2 O19 P

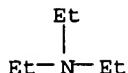
Absolute stereochemistry.



CM 2

CRN 121-44-8

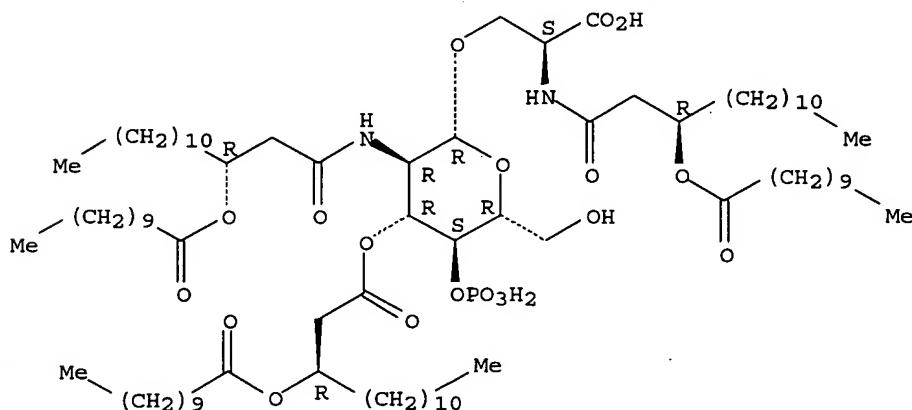
CMF C6 H15 N



8 REFERENCES IN FILE CA (1907 TO DATE)  
 8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 25 OF 25 REGISTRY COPYRIGHT 2005 ACS on STN  
 RN 216013-96-6 REGISTRY  
 ED Entered STN: 23 Dec 1998  
 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxoundecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxoundecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
 glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxoundecyl)oxy]tetradecyl]- (9CI) (CA  
 INDEX NAME)  
 OTHER NAMES:  
 CN CRX 538  
 FS STEREOSEARCH  
 DR 854918-14-2  
 MF C84 H157 N2 O19 P  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> b hcpl  
 FILE 'HCAPLUS' ENTERED AT 08:43:56 ON 05 AUG 2005  
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FILE LAST UPDATED: 4 Aug 2005 (20050804/ED)

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L37 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:431458 HCAPLUS  
DN 142:463966  
ED Entered STN: 20 May 2005  
TI Processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction  
IN Johnson, David A.; Johnson, Craig L.; Bazin-Lee, Helene G.; Sowell, C. Gregory  
PA Corixa Corporation, A Corporation of the State of Delaware, USA  
SO U.S. Pat. Appl. Publ., 32 pp., Cont.-in-part of U.S. Ser. No. 472,991.  
CODEN: USXXCO  
DT Patent  
LA English  
IC ICM C07H005-04  
ICS C12P019-04  
INCL 536018700; 536055300  
CC 33-7 (Carbohydrates)  
Section cross-reference(s): 15, 34  
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005107600	A1	20050519	US 2004-897194	20040721
	WO 2004005308	A2	20040115	WO 2003-US21504	20030708
	WO 2004005308	A3	20040422		
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	US 2004267007	A1	20041230	US 2004-472991	20040812
PRAI	US 2002-394487P	P	20020708		
	WO 2003-US21504	W	20030708		
	US 2004-472991	A2	20040812		
	US 2003-438585P	P	20030106		

CLASS  
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 2005107600	ICM	C07H005-04
	ICS	C12P019-04
	INCL	536018700; 536055300
US 2005107600	NCL	536/018.700; 536/055.300
WO 2004005308	ECLA	C07H005/02; C07H011/04; C07H013/04; C07H015/04
US 2004267007	NCL	536/120.000

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB This invention relates to processes for production of alkylamino glucosaminide phosphate compds., and of disaccharide compds. I, wherein PG is a protecting group that forms an ester, an ether, or a carbonate with the oxygen atom of a hydroxy group or that forms an amide or a carbonate with the nitrogen atom of an amino group, including various novel intermediates and intermediate processes. In one aspect, glycosyl halides are produced by reaction of an O-silyl glycoside with a dihalo-Me alkyl ether. Thus, amino glycoside II was prepared via glycosylation reaction.

ST glycolipid alkylamino glycoside disaccharide amino acid prep; alkylamino glucosaminide phosphate disaccharide immunoeffector glycoside amino acid prep

IT Glycosides  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (amino; processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT Disaccharides  
 Glycolipids  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 851445-31-3P  
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 216014-15-2P 216014-46-9P 216014-50-5P 216014-59-4P  
 640291-35-6P 640291-36-7P 640291-37-8P 640291-38-9P 640291-41-4P  
 640291-42-5P 640291-43-6P 640291-44-7P  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 66-84-2 4885-02-3 17341-93-4 35946-66-8 66471-00-9 77987-49-6  
 79733-86-1 82911-81-7 87357-76-4 108549-23-1 122105-45-7  
 640291-27-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 97562-23-7P 122210-05-3P 126497-01-6P 640291-15-2P 640291-16-3P  
 640291-17-4P 640291-18-5P 640291-19-6P 640291-20-9P 640291-21-0P  
 640291-22-1P 640291-23-2P 640291-24-3P 640291-25-4P 640291-26-5P  
 640291-28-7P 640291-29-8P 640291-30-1P 640291-31-2P 640291-32-3P  
 640291-33-4P 640291-40-3P 851445-28-8P 851445-29-9P 851445-30-2P  
 851445-32-4P 851445-33-5P 851445-34-6P 851445-35-7P 851445-36-8P  
 851445-37-9P 851445-38-0P 851445-39-1P 851445-40-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 2456-81-7  
 RL: RGT (Reagent); RACT (Reactant or reagent)  
 (processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

IT 216014-15-2P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP  
(Preparation)(processes for the production of amino-alkyl glucosaminide phosphate and  
disaccharide immunoeffectors, and intermediates therefor via  
glycosylation reaction)

RN 216014-15-2 HCAPLUS

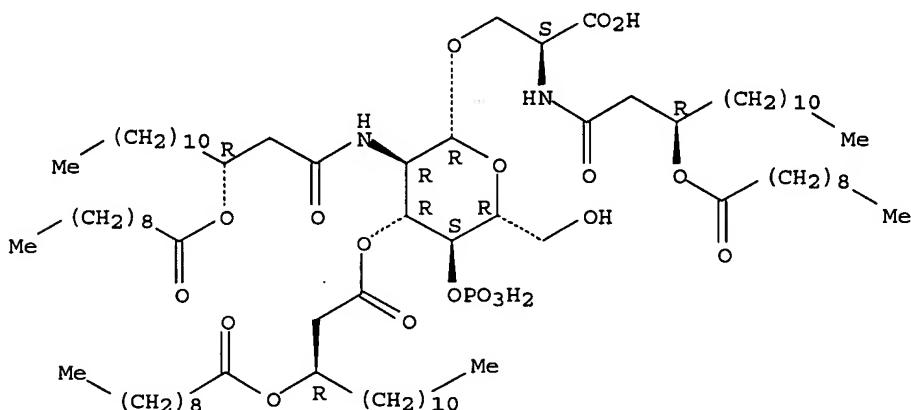
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-  
[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-  
glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with  
N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216014-14-1

CMF C81 H151 N2 O19 P

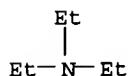
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:389589 HCAPLUS

DN 143:53141

ED Entered STN: 06 May 2005

TI A Synthetic TLR4 Antagonist Has Anti-Inflammatory Effects in Two Murine  
Models of Inflammatory Bowel DiseaseAU Fort, Madeline M.; Mozaffarian, Afsaneh; Stoever, Axel G.; Correia, Jean  
da Silva; Johnson, David A.; Crane, R. Thomas; Ulevitch, Richard  
J.; Persing, David H.; Bielefeldt-Ohmann, Helle; Probst, Peter; Jeffery,  
Eric; Fling, Steven P.; Hershberg, Robert M.

CS Corixa Corporation, Seattle, WA, 98101, USA

SO Journal of Immunology (2005), 174(10), 6416-6423

CODEN: JOIMA3; ISSN: 0022-1767

PB American Association of Immunologists

DT Journal

LA English

CC 1-7 (Pharmacology)

AB Current evidence indicates that the chronic inflammation observed in the intestines of patients with inflammatory bowel disease is due to an aberrant immune response to enteric flora. The authors have developed a lipid A-mimetic, CRX-526, which has antagonistic activity for TLR4 and can block the interaction of LPS with the immune system. CRX-526 can prevent the expression of proinflammatory genes stimulated by LPS in vitro. This antagonist activity of CRX-526 is directly related to its structure, particularly secondary fatty acyl chain length. In vivo, CRX-526 treatment blocks the ability of LPS to induce TNF- $\alpha$  release. Importantly, treatment with CRX-526 inhibits the development of moderate-to-severe disease in two mouse models of colonic inflammation: the dextran sodium sulfate model and multidrug resistance gene 1a-deficient mice. By blocking the interaction between enteric bacteria and the innate immune system, CRX-526 may be an effective therapeutic mol. for inflammatory bowel disease.

ST CRX526 TLR4 antagonist antiinflammatory bowel disease

IT CD antigens  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(CD48; synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Transcription factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(I $\kappa$ B- $\alpha$  (NF- $\kappa$ B inhibitor  $\alpha$ ); synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Transcription factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(NF- $\kappa$ B (nuclear factor of  $\kappa$  light chain gene enhancer in B-cells); synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Proteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(TAP-1 (transporter in antigen processing 1); synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(TLR-4 (Toll-like receptor-4); synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Proteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(TSG-14; synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Intestine, disease  
(inflammatory; synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Chemokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(interferon  $\gamma$ -inducible protein-10; synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Anti-inflammatory agents  
Gene expression profiles, animal  
Human  
Microarray technology  
(synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Fas antigen  
Interleukin 1 receptor antagonist  
Interleukin 1 $\beta$   
Interleukin 6  
Melanoma growth-stimulating activity- $\alpha$   
Tumor necrosis factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT Interleukin 2 receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
( $\alpha$  chain; synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT 329900-75-6, COX-2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

IT 245515-64-4, CRX 526 362594-91-0, CRX 567  
362594-92-1, CRX 568 566170-29-4, CRX 570

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Abreu, M; J Immunol 2001, V167, P1609 HCPLUS
- (2) Akashi, S; J Exp Med 2003, V198, P1035 HCPLUS
- (3) Akira, S; Nat Immunol 2001, V2, P675 HCPLUS
- (4) Baker, P; Infect Immun 1992, V60, P2694 HCPLUS
- (5) Barton, G; Curr Opin Immunol 2002, V14, P380 HCPLUS
- (6) Beutler, B; Immunity 2001, V15, P5 HCPLUS
- (7) Cario, E; Infect Immun 2000, V68, P7010 HCPLUS
- (8) Cooper, H; Lab Invest 1993, V69, P238 HCPLUS
- (9) Da Silva, C; J Biol Chem 2002, V277, P1845
- (10) Duchmann, R; Clin Exp Immunol 1995, V102, P448 MEDLINE
- (11) Duchmann, R; Res Immunol 1997, V148, P589 MEDLINE
- (12) Elson, C; Int Rev Immunol 2000, V19, P63 HCPLUS
- (13) Hausmann, M; Gastroenterology 2002, V122, P1987 HCPLUS
- (14) Hornef, M; J Exp Med 2003, V198, P1225 HCPLUS
- (15) Hugot, J; Nature 2001, V411, P599 HCPLUS
- (16) Janeway, C; Annu Rev Immunol 2002, V20, P197 HCPLUS
- (17) Johnson, D; Bioorg Med Chem Lett 1999, V9, P2273 HCPLUS
- (18) Johnson, G; Crit Rev Immunol 2003, V23, P15 HCPLUS
- (19) Kawata, T; Br J Pharmacol 1999, V127, P853 HCPLUS
- (20) Kobayashi, M; J Clin Invest 2003, V111, P1297 HCPLUS
- (21) Kopp, E; Curr Opin Immunol 2003, V15, P396 HCPLUS
- (22) Lange, S; APMIS 1996, V104, P823 MEDLINE
- (23) Maggio-Price, L; Am J Pathol 2002, V160, P739 HCPLUS
- (24) Means, T; J Immunol 2001, V166, P4074 HCPLUS
- (25) Ogura, Y; Nature 2001, V411, P603 HCPLUS
- (26) Panwala, C; J Immunol 1998, V161, P5733 HCPLUS
- (27) Persing, D; Trends Microbiol 2002, V10, P32 HCPLUS
- (28) Poltorak, A; Proc Natl Acad Sci USA 2000, V97, P2163 HCPLUS
- (29) Probst, P; Eur J Immunol 1997, V27, P2634 HCPLUS
- (30) Rakoff-Nahoum, S; Cell 2004, V118, P229 HCPLUS
- (31) Sandborn, W; Gastroenterology 2002, V122, P1592 HCPLUS
- (32) Sands, B; Gastroenterology 2000, V118, P868 HCPLUS
- (33) Shanahan, F; Gut 2001, V48, P609 MEDLINE
- (34) Smith, P; J Immunol 2001, V167, P2651 HCPLUS
- (35) Stover, A; J Biol Chem 2003, V279, P4440
- (36) Strober, W; Annu Rev Immunol 2002, V20, P495 HCPLUS
- (37) Takeda, K; Annu Rev Immunol 2003, V21, P335 HCPLUS
- (38) Takeda, K; Immunity 1999, V10, P39 HCPLUS

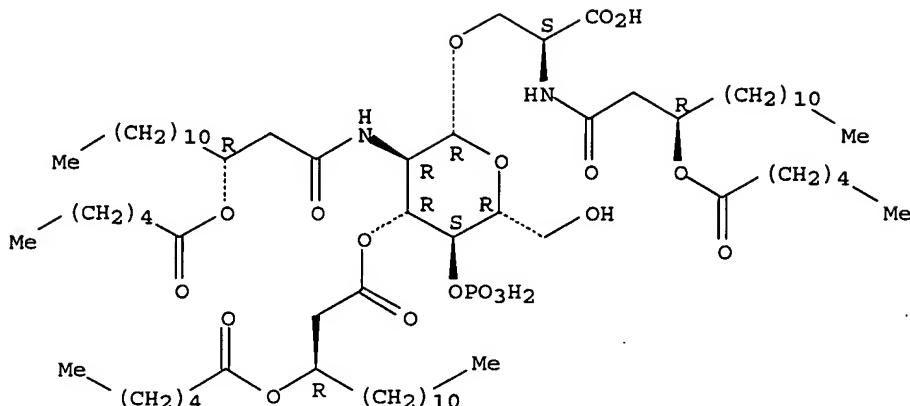
IT 245515-64-4, CRX 526

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(synthetic TLR4 antagonist has anti-inflammatory effects in two murine models of inflammatory bowel disease)

RN 245515-64-4 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxohexyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)

### Absolute stereochemistry.



L37 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:389130 HCAPLUS

DN 143:70999

ED Entered STN: 06 May 2005

TI Synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge

AU Cluff, Christopher W.; Baldridge, Jory R.; Stoever, Axel G.; Evans, Jay T.; Johnson, David A.; Lacy, Michael J.; Clawson, Valerie G.; Yorgensen, Vonna M.; Johnson, Craig L.; Livesay, Mark T.; Hershberg, Robert M.; Persing, David H.

CS Corixa Corporation, Seattle, WA, 98101, USA

© 2005, American Society for Microbiology, 73(5), 3044-3052

CODEN: INFIBR; ISSN: 0019-9567

PB American Society for Microbiology

DT Journal

## LA English

CC 1-3 (Pharmacology)

AB A compound family of synthetic lipid A mimetics (termed the aminoalkyl glucosaminide phosphates [AGPs]) was evaluated in murine infectious disease models of protection against challenge with *Listeria monocytogenes* and influenza virus. For the *Listeria* model, i.v. administration of AGPs was followed by i.v. bacterial challenge 24 h later. Spleens were harvested 2 days postchallenge for the enumeration of CFU. For the influenza virus model, mice were challenged with virus via the intranasal/intrapulmonary route 48 h after intranasal/intrapulmonary administration of AGPs. The severity of disease was assessed daily for 3 wk following challenge. Several types of AGPs provided strong protection against influenza virus or *Listeria* challenge in wild-type mice, but they were inactive in the C3H/HeJ mouse, demonstrating the dependence of the AGPs on toll-like receptor 4 (TLR4) signaling for the protective effect. Structure-activity relationship studies showed that the activation of innate immune effectors by AGPs depends primarily on the lengths of the secondary acyl chains within the three acyl-oxy-acyl residues and also on the nature of the functional group attached to the aglycon component. We conclude that the administration of synthetic TLR4 agonists provides rapid pharmacol. induction of innate resistance to infectious challenge by two different pathogen classes, that this effect is mediated via TLR4, and that structural differences between AGPs can have dramatic effects on agonist activity *in vivo*.

ST toll receptor aminoalkyl glucosaminidine phosphate virus infection vaccine  
IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(TLR-4 (Toll-like receptor-4); synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT Influenza virus  
 Listeria monocytogenes  
 Structure-activity relationship  
 Vaccines  
 (synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT Infection  
 (viral; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216013-81-9  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 512; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 854923-92-5  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 522; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-49-2  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 524; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-55-0  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 525; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 245515-64-4  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 526; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-14-1  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 527; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-45-8  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 529; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-20-9  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 537; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216013-96-6  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 538; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 857026-80-3  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 545; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-36-7  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 554; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-28-7  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)  
 (CRX 555; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-62-9  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 557; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216013-87-5  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 560; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 566170-22-7  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 565; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 362594-90-9  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 566; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 362594-92-1  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 567; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 362594-91-0  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 568; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 566170-27-2  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 569; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 566170-29-4  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 570; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 216014-68-5  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 571; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

IT 854923-97-0  
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 573; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Akira, S; Curr Opin Immunol 2003, V15, P5 HCPLUS
- (2) Ayabe, T; Natl Immunol 2000, V1, P113 HCPLUS
- (3) Baldridge, J; J Endotoxin Res 2002, V8, P453 HCPLUS
- (4) Berger, F; Adv Pharmacol 1967, V5, P19 HCPLUS
- (5) Caamano, J; Clin Microbiol Rev 2002, V15, P414 HCPLUS
- (6) Evans, J; Expert Rev Vaccines 2003, V2, P219 HCPLUS
- (7) Friedland, N; Proc Natl Acad Sci USA 2003, V100, P2512 HCPLUS
- (8) Gioannini, T; Proc Natl Acad Sci USA 2004, V101, P4186 HCPLUS
- (9) Gruber, A; J Biol Chem 2004, V279, P28475 HCPLUS
- (10) Hagberg, L; Infect Immun 1984, V46, P839 MEDLINE
- (11) Hoebe, K; Nature 2003, V424, P743 HCPLUS

(12) Johnson, A; Clin Microbiol Rev 1994, V7, P277 HCAPLUS  
 (13) Johnson, D; Bioorg Med Chem Lett 1999, V9, P2273 HCAPLUS  
 (14) Johnson, D; J Med Chem 1999, V42, P4640 HCAPLUS  
 (15) Kaisho, T; Biochim Biophys Acta 2002, V1589, P1 HCAPLUS  
 (16) Kawai, T; Immunity 1999, V11, P115 HCAPLUS  
 (17) Kennedy, M; J Biol Chem 2004  
 (18) Macela, A; FEMS Immunol Med Microbiol 1996, V13, P235 HCAPLUS  
 (19) Masihi, K; Int J Immunopharmacol 1986, V8, P339 HCAPLUS  
 (20) Medzhitov, R; Immunol Rev 2000, V173, P89 HCAPLUS  
 (21) Miyake, K; Trends Microbiol 2004, V12, P186 HCAPLUS  
 (22) Mullen, G; Proc Natl Acad Sci USA 2003, V100, P3919 HCAPLUS  
 (23) Muller, J; Immunobiology 1993, V187, P233 MEDLINE  
 (24) Myers, K; Cellular and molecular aspects of endotoxin reactions 1990, P145  
 HCAPLUS  
 (25) Neter, E; Curr Top Microbiol Immunol 1969, V47, P82 HCAPLUS  
 (26) Nikolic-Zugic, J; Immunol Res 1991, V10, P54 HCAPLUS  
 (27) O'Brien, A; J Immunol 1980, V124, P20 MEDLINE  
 (28) O'Neill, L; J Endotoxin Res 2003, V9, P55 HCAPLUS  
 (29) Persing, D; Trends Microbiol 2002, V10, P32 HCAPLUS  
 (30) Poltorak, A; Blood Cells Mol Dis 1998, V24, P340 HCAPLUS  
 (31) Poltorak, A; Blood Cells Mol Dis 1999, V25, P78 HCAPLUS  
 (32) Poltorak, A; Science 1998, V282, P2085 HCAPLUS  
 (33) Re, F; J Immunol 2003, V171, P5272 HCAPLUS  
 (34) Rosenstreich, D; Crit Rev Immunol 1982, V3, P263 MEDLINE  
 (35) Singh, J; Anim Reprod Sci 2000, V59, P159 HCAPLUS  
 (36) Stover, A; J Biol Chem 2003  
 (37) Sweet, M; J Leukoc Biol 1996, V60, P8 HCAPLUS  
 (38) Toshchakov, V; Nat Immunol 2002, V3, P392 HCAPLUS  
 (39) Triantafilou, M; J Cell Sci 2002, V115, P2603 HCAPLUS  
 (40) Ulrich, J; Advances in the biosciences 1988, V68, P167  
 (41) Visintin, A; J Biol Chem 2003, V278, P48313 HCAPLUS  
 (42) Visintin, A; Proc Natl Acad Sci USA 2001, V98, P12156 HCAPLUS  
 (43) Woods, J; Infect Immun 1988, V56, P1950 MEDLINE  
 (44) Wright, C; J Mol Biol 2000, V304, P411 HCAPLUS  
 (45) Wright, C; J Mol Biol 2003, V331, P951 HCAPLUS  
 (46) Yamamoto, M; Science 2003, V301, P640 HCAPLUS

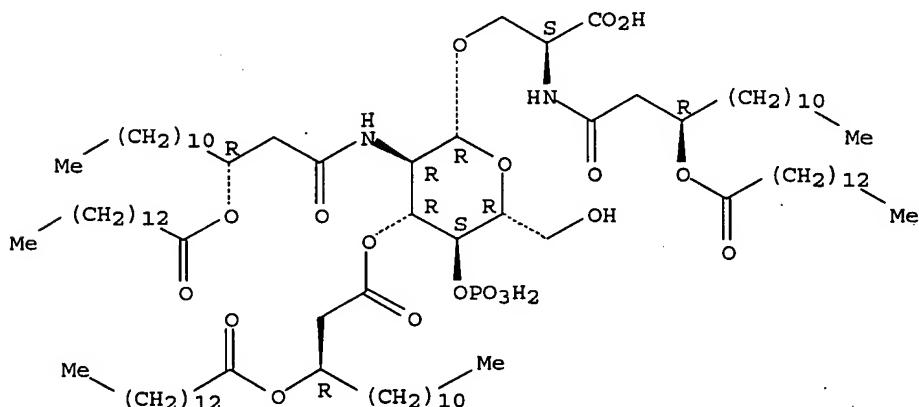
IT 216013-81-9

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (CRX 512; synthetic Toll-like receptor 4 agonists stimulate innate resistance to infectious challenge)

RN 216013-81-9 HCAPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:610053 HCAPLUS  
 DN 141:162352  
 ED Entered STN: 30 Jul 2004  
 TI Certain aminoalkyl glucosaminide phosphate compounds and their use  
 IN Johnson, David A.  
 PA Corixa Corporation, USA  
 SO PCT Int. Appl., 80 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English  
 IC ICM A61K  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 15, 33

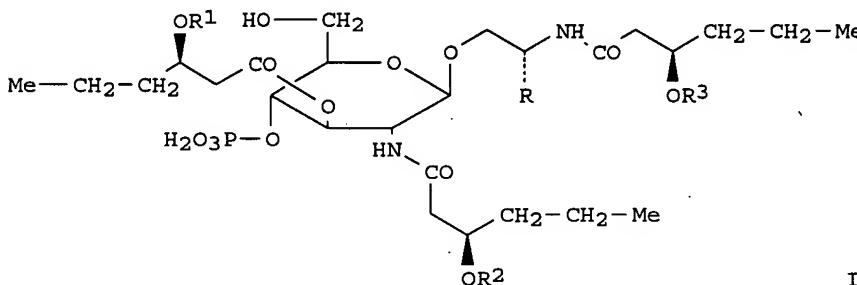
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004062599	A2	20040729	WO 2004-US377	20040106
W: AE, AE, AG, AL, AL, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MG, MN, MW, MX, MX, MZ				
PRAI US 2003-438585P	P	20030106		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004062599	ICM	A61K
WO 2004062599	ECLA	C07H005/02; C07H011/04; C07H013/04; C07H015/04
OS MARPAT 141:162352		

GI



AB Aminoalkyl glucosaminide phosphates, such as I [R = CO<sub>2</sub>H, CH<sub>2</sub>PO<sub>3</sub>H<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> = aliphatic acyl], were described and claimed for therapeutic use as adjuvants and immunoeffectors. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages.

ST glucosaminide phosphate adjuvant immunoeffector cytokine prodn macrophage activation; antibody prodn glucosaminide phosphate adjuvant immunoeffector

IT Immunostimulants  
 (adjuvants; therapeutic use of aminoalkyl glucosaminide phosphates as adjuvants and immunoeffectors which augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages)

IT Drug delivery systems

## Macrophage

(therapeutic use of aminoalkyl glucosaminide phosphates as adjuvants and immunoeffectors which augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages)

## IT Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(therapeutic use of aminoalkyl glucosaminide phosphates as adjuvants and immunoeffectors which augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages)

## IT 216014-15-2DP, RC 527, analogs 376394-26-2DP, RC 526, analogs

RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(therapeutic use of aminoalkyl glucosaminide phosphates as adjuvants and immunoeffectors which augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages)

## IT 216014-15-2DP, RC 527, analogs

RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(therapeutic use of aminoalkyl glucosaminide phosphates as adjuvants and immunoeffectors which augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages)

## RN 216014-15-2 HCAPLUS

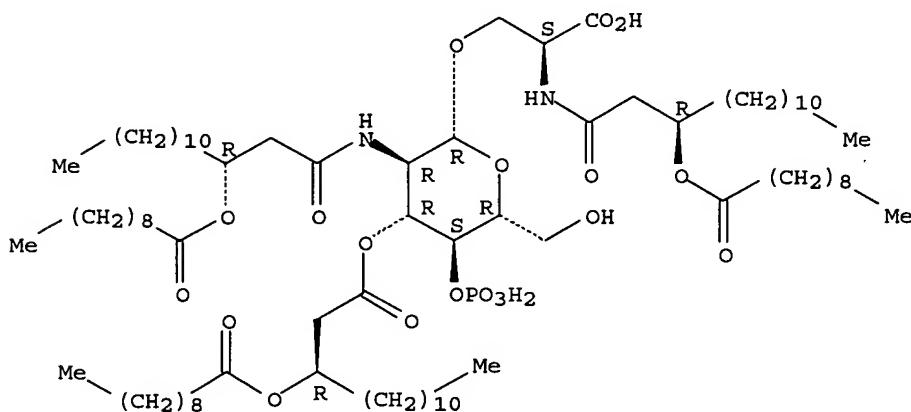
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216014-14-1

CMF C81 H151 N2 O19 P

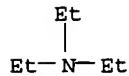
## Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:96950 HCAPLUS  
 DN 140:331799  
 ED Entered STN: 06 Feb 2004  
 TI Structure-Activity Relationship of Synthetic Toll-like Receptor 4 Agonists  
 AU Stoever, Axel G.; Da Silva Correia, Jean; Evans, Jay T.; Cluff, Christopher W.; Elliott, Mark W.; Jeffery, Eric W.; Johnson, David A.; Lacy, Michael J.; Baldridge, Jory R.; Probst, Peter; Ulevitch, Richard J.; Persing, David H.; Hershberg, Robert M.  
 CS Corixa Corporation, Seattle, WA, 98104, USA  
 SO Journal of Biological Chemistry (2004), 279(6), 4440-4449  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PB American Society for Biochemistry and Molecular Biology  
 DT Journal  
 LA English  
 CC 1-3 (Pharmacology)  
 AB Important questions remain regarding the impact of variations in the structure of the lipid A portion of lipopolysaccharide on activation of cells via the Toll-like receptor 4 complex. We have studied a series of synthetic lipid A mimetic compds. known as aminoalkyl glucosaminide phosphates in which the length of the secondary acyl chain has been systematically varied. Using transcriptional profiling of human monocytes and responses of Toll-like receptor 4 complex cell transfectants, we demonstrate a clear dependence of length on secondary acyl chain on Toll-like receptor 4 activation. Compds. with secondary acyl chains less than eight carbons in length have dramatically reduced activity, and substitutions of the left-sided secondary acyl chain had the most important effect on the Toll-like receptor 4 agonist activity of these mols. The structure-function relationships of these compds. assessed via the induction of chemokines and cytokines following in vivo administration closely mirrored those seen with cell-based studies. This novel set of synthetic lipid A mimetics will be useful for Toll-like receptor 4-based investigations and may have clin. utility as stand-alone immunomodulators.  
 ST Toll receptor TLR4 agonist immunomodulator structure activity gene expression  
 IT Receptors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (TLR-4 (Toll-like receptor-4); structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)  
 IT Structure-activity relationship (immunomodulating; structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)  
 IT DNA microarray technology  
 Gene expression profiles, animal  
 Human  
 Immunomodulators (structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)  
 IT Interleukin 8  
 Macrophage inflammatory protein 1 $\alpha$   
 Monocyte chemoattractant protein-1  
 RANTES (chemokine)  
 Tumor necrosis factors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)  
 IT 216013-81-9 216013-87-5 216014-14-1  
 216014-28-7 245515-64-4 362594-90-9  
 362594-91-0 362594-92-1 566170-22-7  
 566170-27-2 566170-29-4  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)  
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Baker, P; Infect Immun 1992, V60, P2694 HCPLUS
- (2) Bauer, S; Proc Natl Acad Sci U S A 2001, V98, P9237 HCPLUS
- (3) Bishop, R; EMBO J 2000, V19, P5071 HCPLUS
- (4) Brandenburg, K; Biophys J 2002, V83, P322 HCPLUS
- (5) Chuang, T; Biochim Biophys Acta 2001, V1518, P157 HCPLUS
- (6) Da Silva, C; J Biol Chem 2001, V276, P21129
- (7) Da Silva, C; J Biol Chem 2002, V277, P1845
- (8) Eberwine, J; Proc Natl Acad Sci U S A 1992, V89, P3010 HCPLUS
- (9) Eisen, M; Proc Natl Acad Sci U S A 1998, V95, P14863 HCPLUS
- (10) Flo, T; J Biol Chem 2002, V277, P35489 HCPLUS
- (11) Guo, L; Cell 1998, V95, P189 HCPLUS
- (12) Hajjar, A; Nat Immunol 2002, V3, P354 HCPLUS
- (13) Hegde, P; BioTechniques 2000, V29, P548 HCPLUS
- (14) Hemmi, H; Nat Immunol 2002, V3, P196 HCPLUS
- (15) Johnson, D; Bioorg Med Chem Lett 1999, V9, P2273 HCPLUS
- (16) Kimbrell, D; Nat Rev Genet 2001, V2, P256 HCPLUS
- (17) Krieg, A; Vaccine 2000, V19, P618 HCPLUS
- (18) Lee, J; Proc Natl Acad Sci U S A 1993, V90, P9930 HCPLUS
- (19) Lemaitre, B; Cell 1996, V86, P973 HCPLUS
- (20) Luo, L; Nat Med 1999, V5, P117 HCPLUS
- (21) Martin, M; Infect Immun 2003, V71, P2498 HCPLUS
- (22) Mujumdar, S; Bioconjug Chem 1996, V7, P356 HCPLUS
- (23) Mullankey, M; J Pharmacol Exp Ther 2003, V304, P1093 HCPLUS
- (24) Persing, D; Trends Immunol 2002, V10, PS32 HCPLUS
- (25) Poltorak, A; Proc Natl Acad Sci U S A 2000, V97, P2163 HCPLUS
- (26) Poltorak, A; Science 1998, V282, P2085 HCPLUS
- (27) Probst, P; Eur J Immunol 1997, V27, P2634 HCPLUS
- (28) Rock, F; Proc Natl Acad Sci U S A 1998, V95, P588 HCPLUS
- (29) Takeda, K; Annu Rev Immunol 2003, V21, P335 HCPLUS
- (30) Takeuchi, O; Gene (Amst) 1999, V231, P59 HCPLUS
- (31) Tamai, R; Immunology 2003, V110, P66 HCPLUS
- (32) Tobias, P; Immunobiology 1993, V187, P227 HCPLUS
- (33) van Gelder, R; Proc Natl Acad Sci U S A 1990, V87, P1663 HCPLUS
- (34) Visintin, A; Proc Natl Acad Sci U S A 2001, V98, P12156 HCPLUS
- (35) Xing, Z; Am J Respir Cell Mol Biol 1994, V10, P148 HCPLUS
- (36) Yang, S; Infect Immun 2001, V69, P2025 HCPLUS

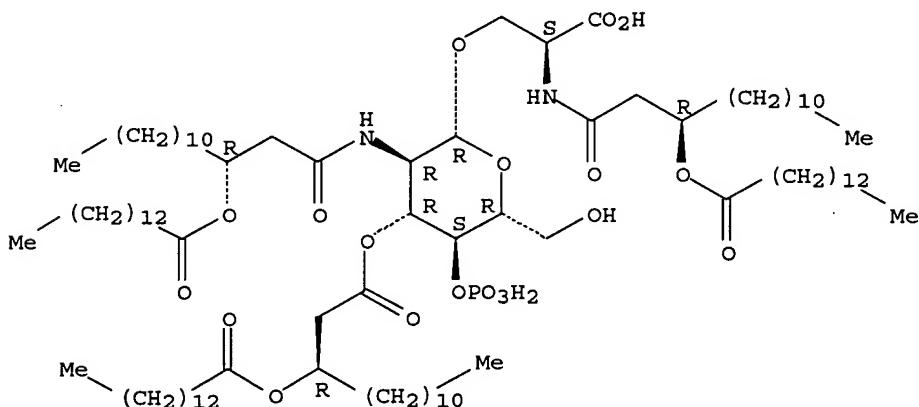
IT 216013-81-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (structure-activity relationship of synthetic Toll-like receptor 4 agonists as immunomodulators)

RN 216013-81-9 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:41489 HCAPLUS  
DN 140:77363  
ED Entered STN: 18 Jan 2004  
TI Processes for the production of aminoalkyl glucosaminide phosphate and  
disaccharide immuno-effectors, and intermediates therefor  
IN Johnson, David A.; Johnson, Craig L.; Bazin-Lee, Helene G.;  
Sowell, C. Gregory  
PA Corixa Corporation, USA  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM C07H015-04  
ICS C07H005-02; C07H011-04; C07H013-04  
CC 33-7 (Carbohydrates)  
Section cross-reference(s): 15, 34

FAN.CNT 3					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004005308	A2	20040115	WO 2003-US21504	20030708
	WO 2004005308	A3	20040422		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2492446	AA	20040115	CA 2003-2492446	20030708
	EP 1521762	A2	20050413	EP 2003-763418	20030708
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003012656	A	20050607	BR 2003-12656	20030708
	US 2005107600	A1	20050519	US 2004-897194	20040721
	US 2004267007	A1	20041230	US 2004-472991	20040812
PRAI	US 2002-394487P	P	20020708		
	US 2003-438585P	P	20030106		
	WO 2003-US21504	W	20030708		
	US 2004-472991	A2	20040812		

CLASS      PATENT NO.      CLASS      PATENT FAMILY CLASSIFICATION CODES

WO 2004005308	ICM	C07H015-04
	ICS	C07H005-02; C07H011-04; C07H013-04
WO 2004005308	ECLA	C07H005/02; C07H011/04; C07H013/04; C07H015/04
US 2005107600	NCL	536/018.700; 536/055.300
US 2004267007	NCL	536/120.000

OS MARPAT 140:77363

GI



AB This invention relates to processes for production of alkylamino glucosaminide phosphate compds., and of disaccharide compds., including various novel intermediates and intermediate processes. Reaction of an O-silyl glycoside I, wherein R has the formula R1R2R3Si, in which R1-R3 are independently selected from the group consisting of C1-C6 alkyl, C3-C6 cycloalkyl and optionally substituted Ph; PG represents a protecting group that forms an ester, an ether or a carbonate with the oxygen atom of a hydroxy group or that forms an amide or a carbamate with the nitrogen atom of an amino group, resp., with a dihalo-Me alkyl ether gave glycosyl halides I,. In one aspect, glycosyl halides I, wherein A is Cl, Br, F are produced by reaction of an O-silyl glycoside I with a dihalo-Me alkyl ether. Thus, 2-deoxy-4-O-diphenylphosphono-3-O-[(R)-3-tetradecanoyloxytetradecanoyl]-6-O-(2,2,2-trichloro-1,1-dimethylethoxycarbonyl)-2-(2,2,2-trichloroethoxycarbonylamino)- $\alpha$ -D-glucopyranosyl chloride was prepared from D-glucosamine hydrochloride via chlorination reaction.

ST serine aminoalkyl glucosaminide phosphate disaccharide prepn glycoside monosaccharide halogenation

IT Halogenation  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immuno-effectors via silylation and halogenation reactions)

IT Glycosides  
Monosaccharides  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immuno-effectors via silylation and halogenation reactions)

IT 66270-36-8P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

IT 97562-23-7P 114360-77-9P 126497-01-6P 640291-15-2P 640291-16-3P  
640291-17-4P 640291-18-5P 640291-19-6P 640291-20-9P 640291-21-0P  
640291-22-1P 640291-23-2P 640291-24-3P 640291-25-4P 640291-26-5P  
640291-28-7P 640291-29-8P 640291-30-1P 640291-31-2P 640291-32-3P  
640291-33-4P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

IT 216014-15-2P 216014-59-4P 640291-35-6P 640291-36-7P  
640291-37-8P 640291-38-9P 640291-40-3P 640291-41-4P 640291-42-5P  
640291-43-6P 640291-44-7P  
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

IT 66-84-2, D-Glucosamine hydrochloride 4885-02-3 13686-37-8 25781-01-5  
82911-81-7 87357-76-4 122105-45-7 122210-05-3 252042-31-2  
640291-27-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

IT 2456-81-7 22572-40-3  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

IT 216014-15-2P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

RN 216014-15-2 HCPLUS

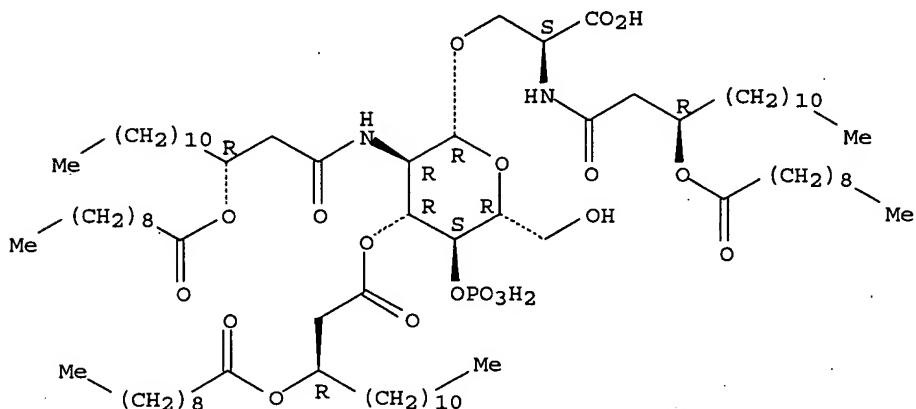
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl-N-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216014-14-1

CMF C81 H151 N2 O19 P

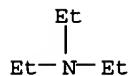
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 7 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2003:836578 HCPLUS

DN 139:307973

ED Entered STN: 24 Oct 2003

TI Preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors

IN Johnson, David A.; Sowell, C. Gregory

PA Corixa Corporation, USA

SO U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 43,086.  
CODEN: USXXCO

DT Patent

LA English

IC A61K031-739; C08B037-00

INCL 514042000; 536053000

CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 34, 63

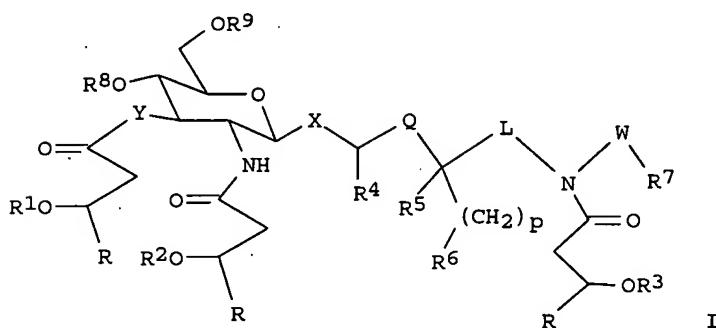
FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003199460	A1	20031023	US 2002-137730	20020430
	US 6113918	A	20000905	US 1997-853826	19970508
	US 6303347	B1	20011016	US 1999-439839	19991112
	US 2002048588	A1	20020425	US 2001-905160	20010712
	US 6764840	B2	20040720		
	US 2003092643	A1	20030515	US 2002-43086	20020108
PRAI	US 1997-853826	A2	19970508		
	US 1999-439839	A1	19991112		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003199460	IC	A61K031-739IC C08B037-00
		INCL	514042000; 536053000
	US 2003199460	NCL	514/042.000; 536/053.000
		ECLA	C07H013/06C; C07H015/04D
	US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000;
			536/119.000
		ECLA	C07H015/04D
	US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400;
			536/117.000; 536/119.000
		ECLA	C07H015/04D
	US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110
		ECLA	C07H015/04D
	US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100
		ECLA	C07H013/06C; C07H015/04D

OS MARPAT 139:307973  
GI



AB Aminoalkyl glucosaminide phosphate compds. (AGP) I were prepared wherein, X is selected from the group consisting of O and S at the axial or equatorial position; Y is selected from the group consisting of O and NH; Q is  $(CH_2)_n$ ; L is  $(CH_2)_m$ ; W is  $(CH_2)_q$ ; n, m, p, q are integers from 0 to 6; R is  $(CH_2)_{10}Me$ ; R1-R3 are the same or different and are normal fatty acyl residues having from 1 to about 20 carbon atoms and where one of R1-R3 is optionally hydrogen; R4 and R5 are the same or different and are selected from the group consisting of H and methyl; R6 and R7 are the same or different and are selected from the group consisting of H, hydroxy, alkoxy, phosphono, phosphono-oxy, sulfo, sulfo-oxy, amino, mercapto, cyano, nitro, formyl and carboxy, and esters and amides thereof; and R8 and R9 are the same or different and are selected from the group consisting of phosphono and H, and at least one of R8 and R9 is phosphono, that are adjuvants and immuno-effectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl

residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immuno-effectors are also disclosed. Thus, N-[(R)-3-hydroxytetradecanoyl]-O-[2-deoxy-4-O-phosphono-2-[(R)-3-dodecanoyloxytetradecanoyl]amino]-3-O-[(R)-3-tetradecanoyloxytetradecanoyl]- $\alpha$ -L-D-glucopyranosyl]-L-serine triethylammonium salt was prepared and tested in mice as adjuvants and immuno-effectors. Mice vaccinated with formalin-inactivated influenza and the AGP compds. of the subject invention mounted a protective immune response to an influenza challenge as well as produced antibody to that antigen.

ST antiinfluenza IgG immunoeffector aminoalkyl glucosaminide phosphate prep; cytokine adjuvant immunoeffector antitetanus toxoid amino acid prep glycoside; aminoalkyl glucosaminide phosphate prep adjuvant immunoeffector antitetanus toxoid antibody

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgG, immobilized; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgG1; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgG2a; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgG2b; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgG; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunostimulants  
 (adjuvants; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Influenza  
 (anti; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Macrophage  
 Vaccines  
 (preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Antigens  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Amino acids, preparation  
 Antibodies and Immunoglobulins  
 Cytokines  
 Glycosides  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Toxoids  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (tetanus; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P  
 216013-82-0P 216013-88-6P 216013-97-7P  
 216014-06-1P 216014-15-2P 216014-21-0P  
 216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P

216014-56-1P 216014-63-0P 216014-69-6P 216014-76-5P  
 216014-82-3P 216014-88-9P 216014-92-5P 216014-98-1P  
 339078-59-0P 339078-61-4P 339078-63-6P 339078-65-8P  
 339078-67-0P 339078-69-2P 339078-71-6P  
 339078-73-8P 339078-75-0P 339078-77-2P  
 339078-79-4P 339078-81-8P 339078-85-2P 339079-17-3P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 66-84-2 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 2456-81-7, 4-Pyrrolidinopyridine 2528-61-2, Heptanoyl chloride 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide methiodide 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl chloroformate 66937-71-1 109977-90-4 122078-72-2 133099-79-3, D-Serine benzyl ester 134304-48-6 166193-98-2 190586-91-5 216014-70-9 339078-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 1738-72-3P 2524-64-3P, Diphenyl chlorophosphate 76062-98-1P  
 87357-76-4P 91578-89-1P 91681-56-0P 122105-45-7P 122210-01-9P  
 186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-12-6P 216013-13-7P 216013-14-8P 216013-15-9P  
 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P 216013-26-2P  
 216013-27-3P 216013-28-4P 216013-29-5P 216013-30-8P 216013-31-9P  
 216013-32-0P 216013-35-3P 216013-36-4P 216013-37-5P 216013-38-6P  
 216013-42-2P 216013-43-3P 216013-44-4P 216013-45-5P 216013-53-5P  
 216013-54-6P 216013-55-7P 216013-56-8P 216013-60-4P 216013-61-5P  
 216013-62-6P 216013-63-7P 216013-66-0P 216013-67-1P 216013-69-3P  
 216013-70-6P 216013-71-7P 216013-75-1P 216013-77-3P 216013-78-4P  
 216013-79-5P 216013-80-8P 216013-83-1P 216013-85-3P 216013-89-7P  
 216013-90-0P 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P  
 216013-98-8P 216013-99-9P 216014-00-5P 216014-01-6P 216014-02-7P  
 216014-04-9P 216014-07-2P 216014-08-3P 216014-09-4P 216014-11-8P  
 216014-12-9P 216014-13-0P 216014-16-3P 216014-17-4P 216014-19-6P  
 216014-22-1P 216014-23-2P 216014-24-3P 216014-25-4P 216014-26-5P  
 216014-27-6P 216014-30-1P 216014-31-2P 216014-32-3P 216014-33-4P  
 216014-34-5P 216014-35-6P 216014-38-9P 216014-39-0P 216014-40-3P  
 216014-41-4P 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P  
 216014-52-7P 216014-53-8P 216014-54-9P 216014-57-2P 216014-59-4P  
 216014-60-7P 216014-61-8P 216014-65-2P 216014-66-3P 216014-67-4P  
 216014-72-1P 216014-73-2P 216014-74-3P 216014-77-6P 216014-78-7P  
 216014-80-1P 216014-83-4P 216014-84-5P 216014-85-6P  
 216014-89-0P 216014-90-3P 216014-93-6P 216014-94-7P 216014-95-8P  
 216014-99-2P 216015-00-8P 216015-01-9P 220048-54-4P 339078-53-4P  
 339078-54-5P 339078-58-9P 339078-82-9P 339078-83-0P 339078-86-3P  
 339078-87-4P 339079-15-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 216013-82-0P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyl glucosaminide phosphates and their use as

adjuvants and immuno-effectors)

RN 216013-82-0 HCPLUS

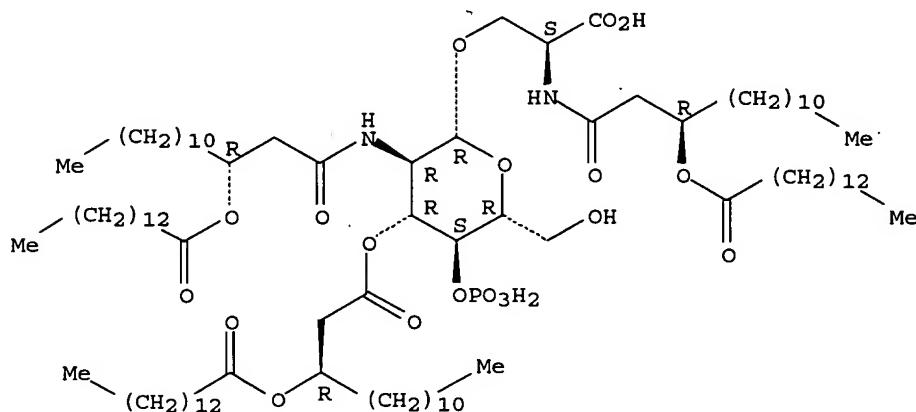
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216013-81-9

CMF C93 H175 N2 O19 P

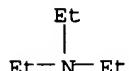
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 8 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2003:570634 HCPLUS

DN 139:127985

ED Entered STN: 25 Jul 2003

TI Prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds

IN Persing, David H.; Crane, Richard T.; Elliot, Gary T.; Ulrich, J. Terry; Lacy, Michael J.; Johnson, David A.; Baldridge, Jory R.; Wang, Rong

PA USA

SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 861,466.  
CODEN: USXXCO

DT Patent

LA English

IC ICM A61K031-739

INCL 514042000; 536053000

CC 1-5 (Pharmacology)

Section cross-reference(s): 33

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2003139356	A1	20030724	US 2001-991376	20011120
	US 2002077304	A1	20020620	US 2001-861466	20010518
	US 6800613	B2	20041005		
	US 2003105032	A1	20030605	US 2002-128156	20020422
	US 2004147480	A1	20040729	US 2004-757233	20040113
PRAI	US 2001-861466	A2	20010518		
	US 2000-205820P	P	20000519		
	US 2001-281567P	P	20010404		
	US 2001-991376	A2	20011120		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
US 2003139356	ICM	A61K031-739		
	INCL	514042000; 536053000		
US 2003139356	NCL	514/042.000; 536/053.000		
	ECLA	C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D		
US 2002077304	NCL	514/024.000; 514/025.000; 536/017.200		
	ECLA	C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D		
US 2003105032	NCL	514/042.000; 536/053.000		
	ECLA	A61K031/7024; C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D		
US 2004147480	NCL	514/054.000		
	ECLA	A61K031/7024; C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D		

OS MARPAT 139:127985

AB Methods and compns. for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compds. for selectively stimulating immune responses in animals and plants.

ST saccharide deriv bacteria virus fungus infection allergy therapy prophylaxis

IT CD antigens

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CD 56; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT CD antigens

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CD11B; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT CD antigens

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CD54; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Cell adhesion molecules

RL: BSU (Biological study, unclassified); BIOL (Biological study) (ICAM-1 (intercellular adhesion mol. 1); prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Cell adhesion molecules

RL: BSU (Biological study, unclassified); BIOL (Biological study) (NCAM (neural cell adhesion mol.); prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Tumor necrosis factors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (TNF- $\alpha$ ; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Dermatitis

(atopic; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Infection

(bacterial; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Mycosis

(candidiasis, vaginal; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Disease, animal  
(chronic rhinosinusitis; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Infection  
(chronic viral hepatitis; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Arthritis  
(chronic; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Intestine, disease  
(inflammatory; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(infusions; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(inhalants; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(injections, i.v.; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Lipid A  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(monophosphates; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(nasal; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Pneumonia  
(nosocomial; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(oral; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Drug delivery systems  
(parenterals; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT Allergy inhibitors  
Animal  
Antibacterial agents  
Antiviral agents  
Asthma  
Autoimmune disease  
Candida  
Enterobacter  
Escherichia  
Firmicutes  
Fungicides  
Gram-negative bacteria  
Human  
Human immunodeficiency virus  
Human papillomavirus  
Immunostimulants  
Infection  
Influenza  
Klebsiella  
Listeria monocytogenes  
Multiple sclerosis  
Mycosis  
Periodontium, disease  
Pneumocystis carinii  
Pneumonia  
Proteus (bacterium)  
Pseudomonas  
Psoriasis

Rheumatoid arthritis  
 Serratia  
 Staphylococcus  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT CD14 (antigen)  
 CD3 (antigen)  
 CD69 (antigen)  
 CD86 (antigen)  
 Fas antigen  
 Interleukin 10  
 Interleukin 1 $\beta$   
 Interleukin 2  
 Interleukin 4  
 Interleukin 5  
 Interleukin 8  
 Macrophage inflammatory protein 1 $\beta$   
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Allergy  
 (seasonal; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Drug delivery systems  
 (transdermal; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Drug delivery systems  
 (transmucosal; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Hepatitis  
 (viral, chronic; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Infection  
 (viral; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Interleukin 2 receptors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\alpha$  chain; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Integrins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\alpha$ M; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT Interferons  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\gamma$ ; prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT 216013-41-1 216013-65-9 216013-73-9 216013-82-0  
 216013-88-6, RC 560 216013-97-7, RC 538  
 216014-06-1 216014-15-2, RC 527 216014-21-0,  
 RC 537 216014-29-8, RC 555 216014-37-8, RC 554  
 216014-46-9, RC-529 216014-50-5, RC-524 216014-56-1 216014-63-0  
 216014-69-6, RC 571 216014-82-3 216014-98-1 253119-91-4,  
 RC-552 376394-26-2, RC 526 566169-92-4, RC 515 566170-07-8,  
 RC 517 566170-10-3, RC 519 566170-11-4, RC 523 566170-17-0, RC 544  
 566170-18-1, RC 577 566170-21-6 566170-23-8  
 566170-24-9 566170-25-0 566170-26-1  
 566170-28-3 566170-30-7 566170-32-9, RC 573  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)  
 IT 2644-64-6, Dipalmitoylphosphatidylcholine 4537-76-2,  
 Distearoylphosphatidylethanolamine 4537-77-3, Dipalmitoyl phosphatidyl  
 glycerol 4537-78-4, Distearoyl phosphatidyl glycerol 4539-70-2,  
 Distearoylphosphatidylcholine 5681-36-7, Dipalmitoylphosphatidylethanol

mine 17966-25-5, Distearoylphosphatidic acid 18656-38-7, Dimyristoylphosphatidylcholine 19698-29-4, Dipalmitoylphosphatidic acid 20255-95-2, Dimyristoylphosphatidylethanolamine 30170-00-4, Dimyristoylphosphatidic acid 61361-72-6, Dimyristoyl phosphatidyl glycerol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

IT 216013-82-0  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

RN 216013-82-0 HCAPLUS

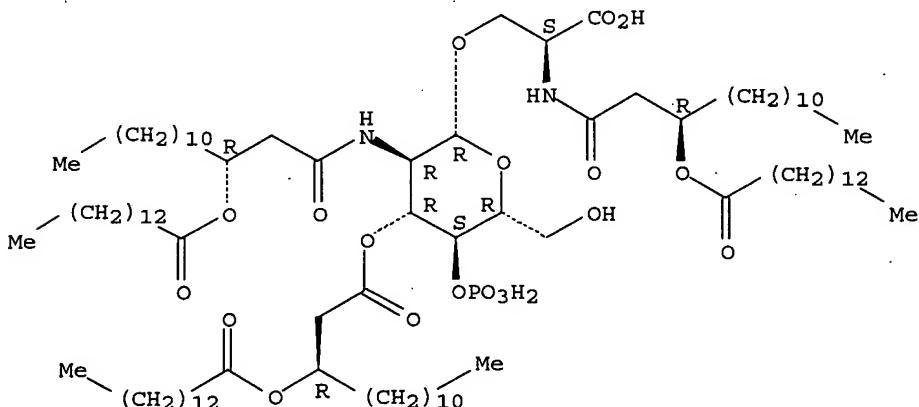
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216013-81-9

CMF C93 H175 N2 O19 P

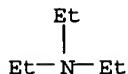
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:435302 HCAPLUS

DN 138:379230

ED Entered STN: 06 Jun 2003

TI Prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds

IN Persing, David H.; Crane, Richard Thomas; Elliott, Gary T.; Ulrich, J. Terry; Lacy, Michael J.; Johnson, David A.; Baldridge, Jory R.; Wang, Rong

PA USA  
 SO U.S. Pat. Appl. Publ., 57 pp., Cont.-in-part of U.S. Ser. No. 991,376.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K031-7008  
 ICS A61K031-737  
 INCL 514042000; 536053000  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 15, 33, 63

## FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003105032	A1	20030605	US 2002-128156	20020422
	US 2002077304	A1	20020620	US 2001-861466	20010518
	US 6800613	B2	20041005		
	US 2003139356	A1	20030724	US 2001-991376	20011120
	ZA 2002009438	A	20040220	ZA 2002-9438	20021120
PRAI	US 2000-205820P	P	20000519		
	US 2001-281567P	P	20010404		
	US 2001-861466	A2	20010518		
	US 2001-991376	A2	20011120		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003105032	ICM	A61K031-7008
		ICS	A61K031-737
		INCL	514042000; 536053000
	US 2003105032	NCL	514/042.000; 536/053.000
		ECLA	A61K031/7024; C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D
	US 2002077304	NCL	514/024.000; 514/025.000; 536/017.200
		ECLA	C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D
	US 2003139356	NCL	514/042.000; 536/053.000
		ECLA	C07H011/00; C07H013/04C; C07H013/06C; C07H015/14D

OS MARPAT 138:379230

AB Methods and compns. for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compds. for selectively stimulating immune responses in animals and plants.

ST infectious disease treatment monosaccharide disaccharide immunostimulant human

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(TLR-1 (Toll-like receptor-1); prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Dermatitis

(atopic; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection

(bacterial; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Mycosis

(candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection

(chronic viral hepatitis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Immunity

(disorder; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to

toxicity)  
 IT Surfactants  
 (drug formulations containing; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Interleukin 10  
 Interleukin 6  
 Interleukin 8  
 Macrophage inflammatory protein 1 $\beta$   
 Tumor necrosis factors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (induction; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Human immunodeficiency virus  
 (infection treatment in relation to infection with; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT AIDS (disease)  
 (infection treatment in; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Mouth, disease  
 Vagina, disease  
 (infection, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Enterobacter  
 Escherichia  
 Human papillomavirus  
 Klebsiella  
 Periodontium, disease  
 Pneumocystis carinii  
 Proteus (bacterium)  
 Pseudomonas  
 Serratia  
 Staphylococcus  
 (infection; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Intestine, disease  
 (inflammatory; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Drug delivery systems  
 (infusions; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Drug delivery systems  
 (inhalants; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Drug delivery systems  
 (injections, i.v.; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Lipid A  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (monophosphates; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)  
 IT Drug delivery systems  
 (mucosal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(nasal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
Pneumonia  
(nosocomial; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
(oral, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(oral; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(parenterals; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Allergy  
Allergy inhibitors  
Antiarthritics  
Antiasthmatics  
Antirheumatic agents  
Autoimmune disease  
Drug delivery systems  
Hay fever  
Human  
Immunostimulants  
Infection  
Influenza  
Mycosis  
Pneumonia  
Psoriasis  
(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Disaccharides  
Monosaccharides  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Inflammation  
Nose, disease  
(rhinitis, allergic and infectious; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Inflammation  
Respiratory tract, disease  
(sinusitis, allergic and infectious; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(transdermal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
(vaginal, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Hepatitis  
(viral, chronic; prophylactic and therapeutic treatment of infectious

and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection

(viral; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 216013-82-0 216013-88-6 216013-97-7

216014-15-2 216014-21-0 216014-29-8

216014-37-8 376394-26-2

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 2644-64-6, Dipalmitoyl phosphatidylcholine 4537-76-2, Distearoyl phosphatidylethanolamine 4537-77-3, Dipalmitoyl phosphatidyl glycerol 4537-78-4, Distearoyl phosphatidyl glycerol 4539-70-2, Distearoyl phosphatidylcholine 5681-36-7, Dipalmitoyl phosphatidylethanolamine 17966-25-5, Distearoyl phosphatidic acid 18656-38-7, Dimyristoyl phosphatidylcholine 19698-29-4, Dipalmitoyl phosphatidic acid 20255-95-2, Dimyristoyl phosphatidylethanolamine 30170-00-4, Dimyristoyl phosphatidic acid 61361-72-6, Dimyristoyl phosphatidyl glycerol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (surfactant, drug formulations containing; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 216013-82-0

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

RN 216013-82-0 HCPLUS

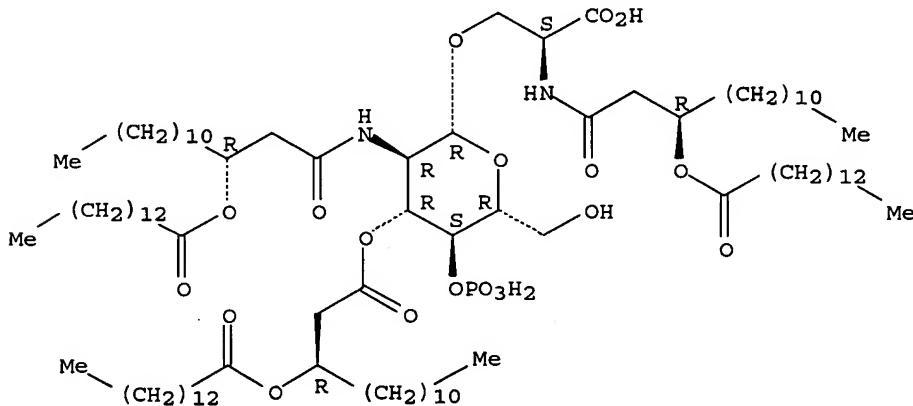
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

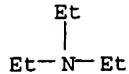
CRN 216013-81-9

CMF C93 H175 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
CMF C6 H15 N

L37 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:376382 HCAPLUS  
 DN 138:384134  
 ED Entered STN: 16 May 2003  
 TI Vaccine compositions comprising aminoalkyl glucosaminide phosphate compounds as adjuvants and immunoeffectors for treating cancerous and infectious diseases  
 IN Johnson, David A.; Sowell, C. Gregory  
 PA Corixa Corporation, USA  
 SO U.S. Pat. Appl. Publ., 60 pp., Cont.-in-part of U.S. Ser. No. 905,160.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K039-02  
 ICS A61K031-739; C07H005-04  
 INCL 514042000; 536053000; 536054000; 424234100  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 1, 63  
 FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003092643	A1	20030515	US 2002-43086	20020108
	US 6113918	A	20000905	US 1997-853826	19970508
	US 6303347	B1	20011016	US 1999-439839	19991112
	US 2002048588	A1	20020425	US 2001-905160	20010712
	US 6764840	B2	20040720		
	US 2003199460	A1	20031023	US 2002-137730	20020430
PRAI	US 1997-853826	A2	19970508		
	US 1999-439839	A1	19991112		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

CLASS	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003092643	ICM	A61K039-02	
	ICS	A61K031-739; C07H005-04	
	INCL	514042000; 536053000; 536054000; 424234100	
US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100	
	ECLA	C07H013/06C; C07H015/04D	
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000;	
	ECLA	536/119.000	
	NCL	C07H015/04D	
US 6303347	435/101.000; 424/278.100; 536/001.110; 536/018.400;		
	536/117.000; 536/119.000		
	ECLA	C07H015/04D	
US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110	
	ECLA	C07H015/04D	
US 2003199460	NCL	514/042.000; 536/053.000	
	ECLA	C07H013/06C; C07H015/04D	

OS MARPAT 138:384134  
 AB Aminoalkyl glucosaminide phosphate (AGP) compds. that are adjuvants and immunoeffectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the

glucosaminide ring and comprise three 3- alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Compns. and methods for using the compds. as adjuvants and immunoeffectors are also disclosed.

ST vaccine antigen tumor protein immune adjuvant aminoalkyl glucosaminide phosphate; cancer infection antigen vaccine immune adjuvant aminoalkyl glucosaminide phosphate

IT Macrophage  
(activation; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Immunostimulants  
(adjuvants; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Functional groups  
(aminoalkyl phosphate; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Blood serum

Mucous membrane  
(antibody production; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(aqueous; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(carriers; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Immunity  
(cell-mediated; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT T cell (lymphocyte)  
(cytotoxic; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Glycosides  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(group; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antigens  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hepatitis B surface; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Solutions  
(isotonic, agent; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Oils  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(metabolizable; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Drug delivery systems  
(nasal, intra-; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating

cancerous and infectious diseases)  
 IT Cytokines  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (production; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Drug delivery systems  
 (solns.; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Toxoids  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (tetanus; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Vaccines  
 (tumor; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Animal  
 Antioxidants  
 Egg, poultry  
 Emulsions  
 Human  
 Immunomodulators  
 Immunostimulants  
 Infection  
 Influenza virus  
 Mammalia  
 Microparticles  
 Microspheres  
 Surfactants  
 Vaccines  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Antibodies and Immunoglobulins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Ovalbumin  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Antigens  
 Polynucleotides  
 Tumor antigens  
 Tumor antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT Phosphatidylcholines, biological studies  
 Phosphatidylethanolamines, biological studies  
 Sphingomyelins  
 Sphingosines  
 Tocopherols  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Antitumor agents  
 (vaccines; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT Infection  
 (viral; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 125978-95-2P, Nitric oxide synthetase  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (inducible; vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 10102-43-9P, Nitric oxide, biological studies  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 66-84-2 76-05-1, Trifluoroacetic acid, reactions 99-73-0,  
 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0,  
 Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid  
 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester  
 2528-61-2, Heptanoyl chloride 6791-49-7, L-Serinamide 15219-34-8,  
 Oxallyl bromide 16357-59-8, 2-Ethoxy-1-ethoxycarbonyl-1,2-  
 dihydroquinoline 17341-93-4, 2,2,2-Trichloroethyl chloroformate  
 22348-97-6, Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-  
 Dimethylaminopropyl)-3-ethylcarbodiimide methiodide 28715-21-1  
 58577-87-0 58577-88-1 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl  
 chloroformate . 66937-71-1, N-(2-Hydroxyethyl)glycine tert-butyl ester  
 105464-42-4 109977-90-4 122078-72-2 133099-79-3 134304-48-6  
 142982-11-4 166193-98-2 216014-70-9 216014-83-4 252042-31-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
 186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-11-5P 216013-12-6P 216013-13-7P 216013-14-8P  
 216013-16-0P 216013-20-6P 216013-22-8P 216013-26-2P 216013-27-3P  
 216013-28-4P 216013-29-5P 216013-30-8P 216013-31-9P 216013-35-3P  
 216013-36-4P 216013-37-5P 216013-42-2P 216013-43-3P 216013-44-4P  
 216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
 216013-60-4P 216013-61-5P 216013-62-6P 216013-66-0P 216013-67-1P  
 216013-69-3P 216013-71-7P 216013-77-3P 216013-78-4P 216013-80-8P  
 216013-83-1P 216013-85-3P 216013-89-7P 216013-90-0P 216013-91-1P  
 216013-92-2P 216013-93-3P 216013-98-8P 216013-99-9P 216014-00-5P  
 216014-01-6P 216014-02-7P 216014-07-2P 216014-08-3P 216014-09-4P  
 216014-11-8P 216014-12-9P 216014-17-4P 216014-22-1P 216014-23-2P  
 216014-24-3P 216014-25-4P 216014-26-5P 216014-30-1P 216014-31-2P  
 216014-32-3P 216014-33-4P 216014-34-5P 216014-38-9P 216014-40-3P  
 216014-41-4P 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P  
 216014-52-7P 216014-53-8P 216014-57-2P 216014-59-4P 216014-60-7P  
 216014-65-2P 216014-66-3P 216014-72-1P 216014-73-2P 216014-77-6P  
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 525604-12-0P 525604-15-3P 525604-20-0P 525604-23-3P 525604-28-8P  
 525604-32-4P 525604-35-7P 525604-38-0P 525604-41-5P 525604-44-8P  
 525604-47-1P 525604-50-6P 525604-53-9P 525604-56-2P 525604-59-5P

525604-62-0P 525604-65-3P 525604-68-6P 525604-76-6P 525604-79-9P  
 525604-81-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 216013-09-1P 216013-19-3P 216013-47-7P 216013-65-9P 216013-73-9P  
 216014-37-8P 216014-98-1P 339078-67-0P  
 339078-71-6P 339078-75-0P 339078-77-2P  
 339079-17-3P 367273-94-7P 525604-11-9P 525604-14-2P  
 525604-17-5P 525604-19-7P 525604-22-2P 525604-34-6P 525604-37-9P  
 525604-40-4P 525604-43-7P 525604-46-0P 525604-49-3P 525604-52-8P  
 525604-55-1P 525604-58-4P 525604-61-9P 525604-64-2P 525604-67-5P  
 525604-70-0P 525604-72-2P 525604-74-4P 525604-78-8P  
 525604-83-5P 525604-85-7P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 3416-24-8DP, 2-Deoxy-2-amino-glucose, aminoalkyl phosphate derivs.  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 56-81-5, Glycerol, biological studies 63-89-8 83-44-3 102-71-6,  
 Triethanolamine, biological studies 111-02-4, Squalene 121-44-8,  
 Triethylamine, biological studies 360-65-6 998-07-2,  
 1,2-Dimyristoyl-sn-glycero-3-phosphoethanolamine 1305-62-0, Calcium  
 hydroxide, biological studies 7732-18-5, Water, biological studies  
 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological  
 studies 106392-12-5, PLURONIC F 68  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

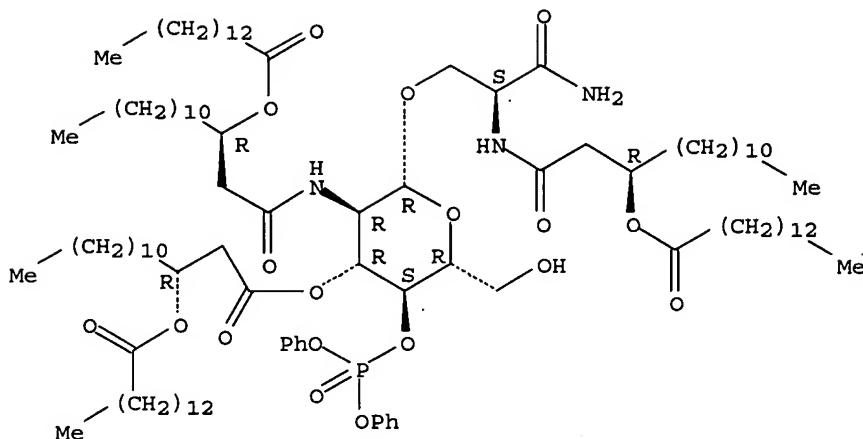
IT 525604-07-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (vaccine compns. comprising m p 43aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

IT 216014-80-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

RN 216014-80-1 HCPLUS

CN Tetradeconamide, N-[(1S)-2-amino-1-[[[2-deoxy-4-O-(diphenoxypyrophosphinyl)-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-β-D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxotetradecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:356202 HCAPLUS

DN 138:367577

ED Entered STN: 09 May 2003

TI Viral vector and immunostimulant for enhancing vaccine immune response without neutralizing antibody response to the viral vector

IN Mossman, Sally P.; Evans, Lawrence S.; Swanson, Ryan Michael

PA Corixa Corporation, USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 15-2 (Immunochemistry)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037275	A2	20030508	WO 2002-US36426	20021028
	WO 2003037275	A3	20040708		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003228279	A1	20031211	US 2002-283484	20021029
PRAI	US 2001-335512P	P	20011031		
	US 2002-369715P	P	20020403		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003037275	ICM	A61K
WO 2003037275	ECLA	A61K039/39
US 2003228279	NCL	424/093.200; 514/054.000; 424/085.100; 424/085.200; 536/053.000
	ECLA	A61K039/39

OS MARPAT 138:367577

AB Compns. and methods comprising a recombinant virus and an immunostimulant are provided for enhancing the immune response to a polypeptide expressed from the recombinant virus. Preferably this is done without also

enhancing the neutralizing antibody response to the recombinant virus. Illustrative compns. comprise an adenovirus and an adjuvant such as, for example, monophosphoryl lipid A, an alkyl glucosaminide phosphate, a saponin, or a combination thereof. The disclosed compns. and methods are useful, for example, in the treatment of diseases such as cancer or infectious disease.

ST virus vector immunostimulant adjuvant aminoalkyl glucosaminide phosphate vaccine antigen; infection cancer vaccine tumor antigen recombinant viral vector adjuvant

IT Antigens  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (TbH9; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Carbohydrates, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (acylated; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunostimulants  
 (adjuvants, AS-2; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunostimulants  
 (adjuvants, Freund's incomplete; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunostimulants  
 (adjuvants, Freund's; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunostimulants  
 (adjuvants, Merch Adjuvant 65; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunostimulants  
 (adjuvants; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Microspheres  
 (biodegradable; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Drug delivery systems  
 (carriers; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Polysaccharides, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (cationic or anionic; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunity  
 (cell-mediated, Th1; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Immunity  
 (humoral; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Drug delivery systems  
 (injections, i.m.; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Drug delivery systems  
(injections, s.c.; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Drug delivery systems  
(intradermal; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Biodegradable materials  
(microsphere; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Lipid A  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(monophosphates; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)  
(neutralizing; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Emulsions  
(oil-in-water; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Quillaja  
(saponins; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Drug delivery systems  
(suspensions; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Saponins  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(triterpenoid; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Vaccines  
(tumor; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Antitumor agents  
(vaccines; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Adeno-associated virus  
Poxviridae  
(vector; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Adenoviral vectors  
Alphavirus  
Antitumor agents  
Avipoxvirus  
CD4-positive T cell  
CD8-positive T cell  
Human  
Immunostimulants  
Infection  
Mammalia  
Mycobacterium tuberculosis  
T cell (lymphocyte)  
Vaccines

Vaccinia virus  
 Viral vectors  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Antigens  
 Cytokines  
 Fusion proteins (chimeric proteins)  
 Interleukin 12  
 Interleukin 2  
 Tumor antigens  
 Tumor antigens  
 Tumor necrosis factors  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Minerals, biological studies  
 Polyphosphazenes  
 Saponins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Emulsions  
 (water-in-oil; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT Interferons  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (α; viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

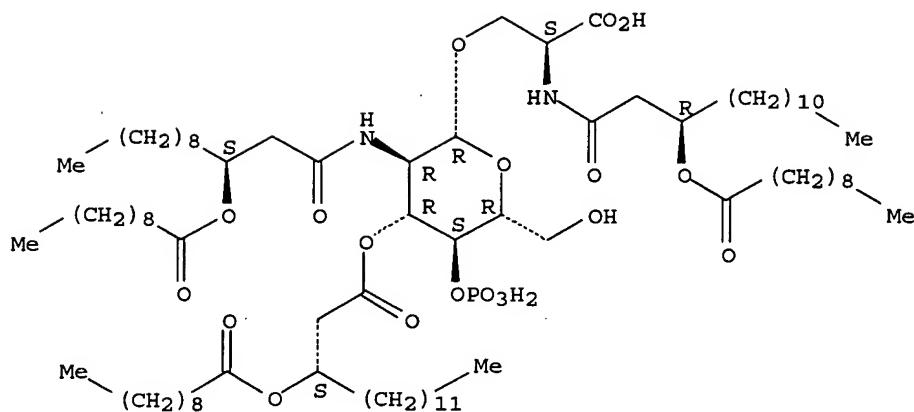
IT 521333-27-7 521333-28-8 521333-29-9 521333-30-2  
 521333-31-3  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT 60-18-4D, Tyrosine, acetylated derivs. 7439-89-6D, Iron, salts  
 7440-66-6D, Zinc, salts 7440-70-2D, Calcium, salts 7784-30-7, Aluminum phosphate 14257-69-3D, β-D-Glucosamine, aminoalkyl phosphate derivs. 21645-51-2D, Aluminum hydroxide, gel 141256-04-4, QS 21  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

IT 521333-28-8  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (viral vector and immunostimulant for delivering vaccine and enhancing immune response without causing neutralizing antibody response to viral vector)

RN 521333-28-8 HCPLUS  
 CN Decanoic acid, (1R)-1-[2-[(1S)-1-carboxy-2-[[2-deoxy-2-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]dodecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxodecyl)oxy]pentadecyl]-4-O-phosphono-β-D-glucopyranosyl]oxy]ethyl]amino]-2-oxoethyl]dodecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:182118 HCAPLUS

DN 136:217004

ED Entered STN: 14 Mar 2002

TI Preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors

IN Johnson, David A.; Sowell, C. Gregory

PA Corixa Corporation, USA

SO U.S., 37 pp., Cont.-in-part of U.S. 6,113,918.  
CODEN: USXXAM

DT Patent

LA English

IC ICM A61K045-00

ICS C07H001-00; C07H011-04; C07H013-02

INCL 424278100

CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 63

FAN.CNT 10

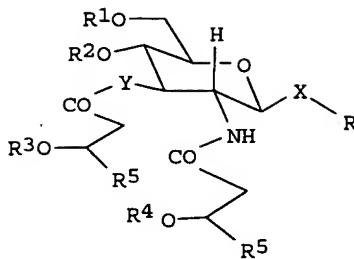
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6355257	B1	20020312	US 1998-74720	19980507
	US 6113918	A	20000905	US 1997-853826	19970508
	ES 2224397	T3	20050301	ES 1998-922138	19980507
PRAI	US 1997-853826	A2	19970508		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6355257	ICM	A61K045-00
	ICS	C07H001-00; C07H011-04; C07H013-02
	INCL	424278100
US 6355257	NCL	424/278.100; 536/001.110; 536/117.000; 536/119.000
	ECLA	C07H015/04D
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000;
		536/119.000
	ECLA	C07H015/04D

OS MARPAT 136:217004

GI



AB Aminoalkyl glucosamine phosphate compds. I (R = substituted alkyl; R1, R2 = H, phosphono; R3, R4 = fatty acid residue; R5 = undecyl; X = O, S; Y = O, NH) were prepared as adjuvants and immunoeffectors. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosamine ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed. Thus, N-carboxymethyl-N-[(R)-3-decanoxyloxytetradecanoyl]-3-aminopropyl-2-deoxy-4-O-phosphono-2-[(R)-3-decanoxyloxytetradecanoylamino]-3-O-[(R)-3-decanoxyloxytetradecanoyl]- $\beta$ -D-glucopyranoside triethylammonium salt was prepared and tested as adjuvant and immunoeffector for anti-tetanus and anti-influenza activities.

ST virucide vaccine aminoalkyl glucosamine phosphate prep; cytokine prodn vaccine aminoalkyl glucosamine phosphate; vaccine antiinfluenza aminoalkyl glucosamine phosphate prep; immunization antitetanus aminoalkyl glucosamine phosphate prep; antitetanus IgG aminoalkyl glucosamine phosphate prep immunoeffector adjuvant

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG, immobilized; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antibodies and Immunoglobulins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(IgG; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
(adjuvants; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antiviral agents  
Immunization  
Vaccines  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Cytokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Glycosides  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT Antibodies and Immunoglobulins  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 109361-17-3

RL: CAT (Catalyst use); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P  
 216013-82-0P 216013-88-6P 216013-97-7P  
 216014-06-1P 216014-15-2P 216014-21-0P  
 216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P  
 216014-56-1P 216014-63-0P 216014-69-6P 216014-76-5P  
 216014-82-3P 216014-88-9P 216014-92-5P 216014-98-1P

RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);  
 PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
 216013-02-4P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-11-5P 216013-12-6P 216013-13-7P 216013-14-8P  
 216013-15-9P 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P  
 216013-26-2P 216013-27-3P 216013-28-4P 216013-29-5P 216013-30-8P  
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 216013-38-6P 216013-42-2P 216013-43-3P 216013-44-4P 216013-45-5P  
 216013-49-9P 216013-50-2P 216013-53-5P 216013-54-6P 216013-55-7P  
 216013-56-8P 216013-60-4P 216013-61-5P 216013-62-6P 216013-63-7P  
 216013-66-0P 216013-67-1P 216013-69-3P 216013-70-6P 216013-71-7P  
 216013-75-1P 216013-77-3P 216013-78-4P 216013-79-5P 216013-80-8P  
 216013-83-1P 216013-85-3P 216013-86-4P 216013-89-7P 216013-90-0P  
 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P 216013-98-8P  
 216013-99-9P 216014-00-5P 216014-01-6P 216014-02-7P 216014-04-9P  
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 216014-13-0P 216014-16-3P 216014-17-4P 216014-19-6P 216014-22-1P  
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 216014-35-6P 216014-38-9P 216014-39-0P 216014-40-3P 216014-41-4P  
 216014-42-5P 216014-44-7P 216014-47-0P 216014-48-1P 216014-52-7P  
 216014-53-8P 216014-54-9P 216014-57-2P 216014-59-4P 216014-60-7P  
 216014-61-8P 216014-65-2P 216014-66-3P 216014-67-4P 216014-72-1P  
 216014-73-2P 216014-74-3P 216014-77-6P 216014-78-7P  
 216014-80-1P 216014-83-4P 216014-84-5P 216014-85-6P  
 216014-89-0P 216014-90-3P 216014-93-6P 216014-94-7P 216014-95-8P  
 216014-99-2P 216015-00-8P 216015-01-9P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 66-84-2, D-Glucosamine hydrochloride 99-73-0, 2,4'-Dibromoacetophenone  
 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3,  
 Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl  
 chloride 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester  
 2528-61-2, Heptanoyl chloride 22348-97-6, Methyl 3-oxotetradecanoate  
 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8  
 66937-71-1 91578-89-1 122078-72-2 133099-79-3, D-Serine benzyl ester  
 142982-11-4 166193-98-2 216013-74-0 216014-70-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bulusu; Cyclic Analogues of Lipid A: Synthesis and Biological Activities 1992, P3463 HCPLUS
- (2) Eustache; Charbohydrate Research 1994, V251, P251 HCPLUS
- (3) Ikeda; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (4) Ikeda; Synthesis of Biologically Active N-Acylated L-serine Containing Glucosamine-4-Phosphate Derivatives of Lipid A 1993, P1879 HCPLUS
- (5) Miyajima; Chem Pharm Bull 1996, V44(12), P2268
- (6) Miyajima; Lipid A and Related Compounds XXXI 1996, P2268

(7) Shimizu; Antitumor Activity and Biological Effects of Chemically Synthesized Monosaccharide Analogues of Lipid A in Mice 1985, P4621 HCPLUS  
 (8) Shimizu; Biological Activities and Antitumor Effects of Synthetic Lipid A Analogs Linked N-Acylated Serine 1995, P425 HCPLUS  
 (9) Shimizu; Biological Activities of Chemically Synthesized N-acylated Serine-linked Lipid A Analog in Mice 1994, P659 HCPLUS

IT 216013-82-0P

RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RN 216013-82-0 HCPLUS

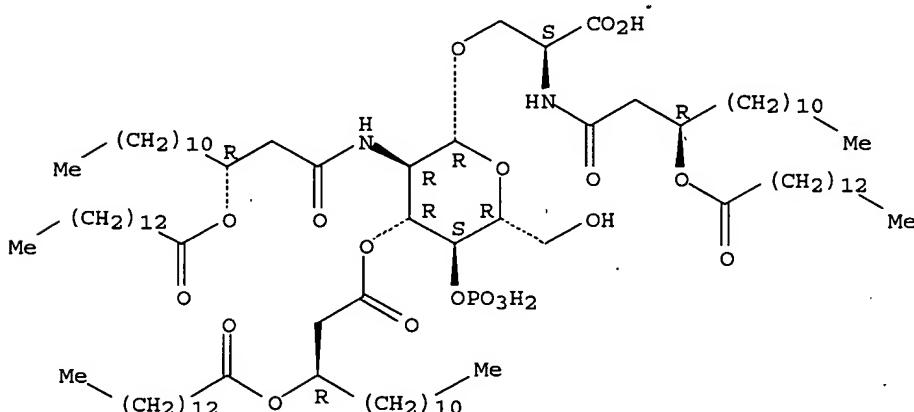
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[[[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 216013-81-9

CMF C93 H175 N2 O19 P

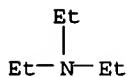
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



L37 ANSWER 13 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2001:868475 HCPLUS

DN 136:628

ED Entered STN: 30 Nov 2001

TI Prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds

IN Persing, David H.; Crane, Richard Thomas; Elliot, Gary T.; Ulrich, J. Terry; Lacy, Michael J.; Johnson, David A.; Baldridge, Jory R.; Wang, Rong

PA Corixa Corporation, USA

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English.

IC ICM C07H015-00

CC 1-7 (Pharmacology)

Section cross-reference(s): 15, 63

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001090129	A2	20011129	WO 2001-US16327	20010518
	WO 2001090129	A3	20020606		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2409221	AA	20011129	CA 2001-2409221	20010518
	EP 1284740	A2	20030226	EP 2001-948222	20010518
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004508292	T2	20040318	JP 2001-586316	20010518
	BR 2001010975	A	20040323	BR 2001-10975	20010518
	NZ 522755	A	20040528	NZ 2001-522755	20010518
	ZA 2002009438	A	20040220	ZA 2002-9438	20021120
PRAI	US 2000-205820P	P	20000519		
	US 2001-281567P	P	20010404		
	WO 2001-US16327	W	20010518		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2001090129	ICM	C07H015-00
	WO 2001090129	ECLA	A61K031/7024; C07H013/04C; C07H013/06C; C07H011/00; C07H015/14D
	JP 2004508292	FTERM	4C057/BB02; 4C057/BB03; 4C057/CC03; 4C057/DD02; 4C057/DD03; 4C057/GG06; 4C057/HH02; 4C057/HH03; 4C057/JJ04; 4C076/AA16; 4C076/BB25; 4C076/BB31; 4C076/CC03; 4C076/CC04; 4C076/CC07; 4C076/CC15; 4C076/CC20; 4C076/CC31; 4C076/CC34; 4C076/CC35; 4C076/DD15E; 4C076/DD63E; 4C076/FF15; 4C076/FF16; 4C076/FF57; 4C076/FF68; 4C086/AA01; 4C086/AA02; 4C086/EA05; 4C086/MA01; 4C086/MA02; 4C086/MA04; 4C086/MA05; 4C086/MA21; 4C086/NA02; 4C086/NA10; 4C086/NA14; 4C086/ZA15; 4C086/ZA34; 4C086/ZA59; 4C086/ZA67; 4C086/ZA68; 4C086/ZA75; 4C086/ZA89; 4C086/ZA90; 4C086/ZA96; 4C086/ZB02; 4C086/ZB09; 4C086/ZB11; 4C086/ZB13; 4C086/ZB15; 4C086/ZB33; 4C086/ZB35; 4C086/ZB37; 4C086/ZB38; 4C086/ZC55

OS MARPAT 136:628

AB Methods and compns. for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compds. for selectively stimulating immune responses in animals and plants.

ST infectious disease treatment monosaccharide disaccharide immunostimulant

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (TLR-1 (Toll-like receptor-1); prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Dermatitis

(atopic; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to

toxicity)

IT Infection  
(bacterial; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Mycosis  
(candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
(chronic viral hepatitis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Surfactants  
(drug formulations containing; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Interleukin 10

Interleukin 6

Interleukin 8

Macrophage inflammatory protein 1 $\beta$

Tumor necrosis factors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(induction; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Human immunodeficiency virus  
(infection treatment in relation to infection with; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT AIDS (disease)  
(infection treatment in; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Mouth, disease  
Vagina, disease  
(infection, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Enterobacter  
Escherichia  
Human papillomavirus  
Klebsiella  
Periodontium, disease  
Pneumocystis carinii  
Proteus (bacterium)  
Pseudomonas  
Serratia  
Staphylococcus  
(infection; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Intestine, disease  
(inflammatory; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(infusions; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(inhalants; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(injections, i.v.; prophylactic and therapeutic treatment of infectious

and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Lipid A  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(monophosphates; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(mucosal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(nasal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
Pneumonia  
(nosocomial; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
(oral, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(oral; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
(parenterals; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Allergy inhibitors  
Antiarthritis  
Antiasthmatics  
Antirheumatic agents  
Autoimmune disease  
Drug delivery systems  
Hay fever  
Immunostimulants  
Infection  
Influenza  
Mycosis  
Pneumonia  
Psoriasis  
(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Disaccharides  
Monosaccharides  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Inflammation  
Nose, disease  
(rhinitis, allergic and infectious; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Inflammation  
Respiratory tract, disease  
(sinusitis, allergic and infectious; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Multiple sclerosis  
 (therapeutic agents; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Drug delivery systems  
 (transdermal; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
 (vaginal, candidiasis; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Hepatitis  
 (viral, chronic; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT Infection  
 (viral; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 216013-82-0 216013-88-6 216013-97-7  
 216014-15-2 216014-21-0 216014-29-8  
 216014-37-8 376394-26-2  
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 2644-64-6, Dipalmitoyl phosphatidylcholine 4537-76-2, Distearoyl phosphatidylethanolamine 4537-77-3, Dipalmitoyl phosphatidyl glycerol 4537-78-4, Distearoyl phosphatidyl glycerol 4539-70-2, Distearoyl phosphatidylcholine 5681-36-7, Dipalmitoyl phosphatidylethanolamine 17966-25-5, Distearoyl phosphatidic acid 18656-38-7, Dimyristoyl phosphatidylcholine 19698-29-4, Dipalmitoyl phosphatidic acid 20255-95-2, Dimyristoyl phosphatidylethanolamine 30170-00-4, Dimyristoyl phosphatidic acid 61361-72-6, Dimyristoyl phosphatidyl glycerol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (surfactant, drug formulations containing; prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

IT 216013-82-0  
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

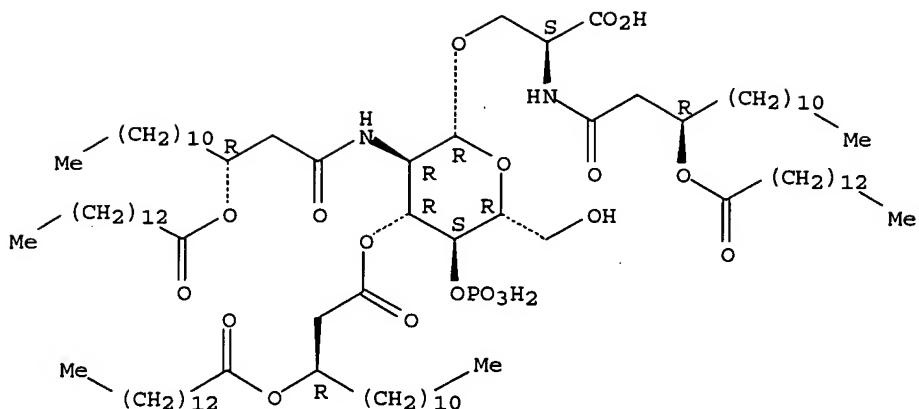
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 CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

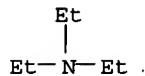
CRN 216013-81-9

CMF C93 H175 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
CMF C6 H15 N

L37 ANSWER 14 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:757768 HCPLUS  
 DN 135:302901  
 ED Entered STN: 17 Oct 2001  
 TI Aminoalkyl glucosaminide phosphate compounds and their use as adjuvants and immunoeffectors  
 IN Johnson, David A.; Sowell, C. Gregory  
 PA Corixa Corporation, USA  
 SO U.S., 44 pp., Cont.-in-part of U.S. 6,113,918.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C12P019-04  
 ICS A61K045-00; C07H001-00; C07H015-00; C07H011-04  
 INCL 435101000  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6303347	B1	20011016	US 1999-439839	19991112
	US 6113918	A	20000905	US 1997-853826	19970508
	ES 2224397	T3	20050301	ES 1998-922138	19980507
	CA 2391299	AA	20010517	CA 2000-2391299	20001113
	WO 2001034617	A2	20010517	WO 2000-US31340	20001113
	WO 2001034617	A3	20011108		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

EP 1230250	BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	A2	20020814	EP 2000-982119	20001113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2000015501	BR 2000-15501	A	20030225	20001113	
JP 2003514783	JP 2001-537329	T2	20030422	20001113	
NZ 518860	NZ 2000-518860	A	20041126	20001113	
US 2002045586	US 2001-808669	A1	20020418	20010314	
US 6699846	US 2001-905160	B2	20040302		
US 2002048588	US 2001-905160	A1	20020425	20010712	
US 6764840	US 2001-905160	B2	20040720		
AU 2001019189	AU 2001-19189	A5	20010606	20011113	
AU 773921	AU 2001-19189	B2	20040610		
US 2003092643	US 2002-43086	A1	20030515	20020108	
US 2003199460	US 2002-137730	A1	20031023	20020430	
NO 2002002207	NO 2002-2207	A	20020710	20020508	
PRAI	US 1997-853826	A2	19970508		
	US 1991-815250	A	19911231		
	US 1998-138305	A1	19980821		
	US 1999-429238	A	19991028		
	US 1999-439839	A	19991112		
	US 2000-190444P	P	20000317		
	WO 2000-US31340	W	20001113		
	US 2001-905160	A2	20010712		
	US 2002-43086	A2	20020108		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6303347	ICM	C12P019-04
	ICS	A61K045-00; C07H001-00; C07H015-00; C07H011-04
	INCL	435101000
US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
	ECLA	C07H015/04D
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
	ECLA	C07H015/04D
WO 2001034617	ECLA	C07H013/06C; C07H015/04D
US 2002045586	NCL	514/053.000; 514/054.000; 514/175.000; 536/053.000; 536/055.000; 536/055.100; 536/123.130
	ECLA	A61K031/70L15L; C07H015/04
US 2002048588	NCL	435/101.000; 424/278.100; 536/001.110
	ECLA	C07H015/04D
US 2003092643	NCL	514/042.000; 536/053.000; 536/054.000; 424/234.100
	ECLA	C07H013/06C; C07H015/04D
US 2003199460	NCL	514/042.000; 536/053.000
	ECLA	C07H013/06C; C07H015/04D

OS MARPAT 135:302901

AB Aminoalkyl glucosaminide phosphate (AGP) compds. that are adjuvants and immunoeffectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed.

ST adjuvant immunoeffector aminoalkyl glucosaminide phosphate compd

IT Immunoglobulins

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (A; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunoglobulins

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)

(G1; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunoglobulins  
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (G2a; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunoglobulins  
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (G2b; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunoglobulins  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (G; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunoglobulins  
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (M; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Macrophage  
 (activation; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Immunostimulants  
 (adjuvants; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antioxidants  
 Egg, poultry  
 Emulsions  
 Influenza virus  
 Vaccines  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Fatty acids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antibodies  
 Cytokines  
 Immunoglobulins  
 Ovalbumin  
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Antigens  
 Phosphatidylcholines, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Phosphatidylethanolamines, biological studies  
 Sphingomyelins  
 Sphingosines  
 Tocopherols  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT Structure-activity relationship  
 (antigenic; aminoalkyl glucosaminide phosphate compds. and their use as

- adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (carriers; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT T cell (lymphocyte)
  - (cytotoxic; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Micelles
  - (dispersion; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Antigens
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (hepatitis B surface; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Immunostimulants
  - (immunoeffector; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (liqs., dispersions; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Cell activation
  - (macrophage; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (microparticles; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (microspheres; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Immunity
  - (mucosal; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (nasal, intra-; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Drug delivery systems
  - (oily, metabolizable; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT Toxoids
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (tetanus; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT 60-18-4, L-Tyrosine, biological studies
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (adsorbate; aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT 125978-95-2, Nitric oxide synthetase
  - RL: ARU (Analytical role, unclassified); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
    - (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT 3416-24-8D, 2-Deoxy-2-amino-D-glucose, aminoalkyl phosphate derivs.
  - 27194-79-2D, D-Glucosamine phosphate, aminoalkyl derivs.
    - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
      - (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)
- IT 66-84-2, D-Glucosamine hydrochloride 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl chloride 2937-50-0, Allyl chloroformate 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6, Methyl

3-oxotetradecanoate 33243-33-3 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66937-71-1, N-(2-Hydroxyethyl)glycine tert-butyl ester 91578-89-1 109977-90-4 122078-72-2 133099-79-3, D-Serine benzyl ester 134304-48-6 142982-11-4 166193-98-2 216013-74-0 216013-98-8 216014-16-3 216014-22-1 216014-30-1 216014-38-9 216014-70-9 252042-31-2 339078-52-3 367273-92-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

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 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 339078-83-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-82-0P  
 216013-88-6P 216013-97-7P 216014-06-1P  
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 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

IT 56-81-5, Glycerol, biological studies 83-44-3 102-71-6,  
 Triethanolamine, biological studies 111-02-4, Squalene 121-44-8,  
 Triethylamine, biological studies 123-78-4, Sphingosine 360-65-6  
 923-61-5 998-07-2, 1,2-Dimyristoyl-sn-glycero-3-phosphoethanolamine

1305-62-0, Calcium hydroxide, biological studies 7732-18-5, Water, biological studies 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological studies 106392-12-5D, PLURONIC F 68, block copolymer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Baldridge; IBC Vaccine Conference 1998
- (2) Bulusu; J Med Chem 1992, V35(19), P3463 HCPLUS
- (3) Eustache; Carbohydrate Research 1994, V251, P251 HCPLUS
- (4) Ikeda; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (5) Johnson; US 6113918 2000 HCPLUS
- (6) Johnson; Bioorg Med Chem Lett 1999, V9(15), P2273 HCPLUS
- (7) Meyers; US B14912094 1994
- (8) Miyajima; Chem Pharm Bull 1996, V44(12), P2268
- (9) Myers; US 4912094 1990 HCPLUS
- (10) Shimizu; Chem Pharm Bull 1985, V33(10), P4621 HCPLUS
- (11) Shimizu; Int J Immunopharmacol 1994, V16(8), P659 HCPLUS
- (12) Shimizu; Int J Immunopharmacol 1995, V17(5), P425 HCPLUS

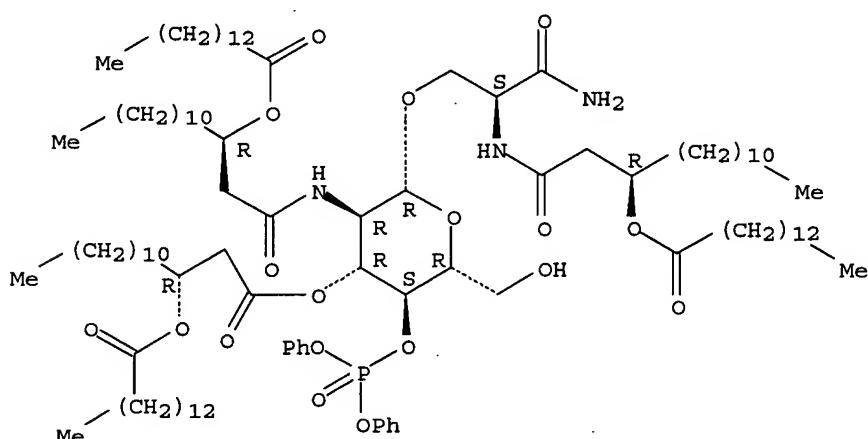
IT 216014-80-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

RN 216014-80-1 HCPLUS

CN Tetradeccanamide, N-[(1S)-2-amino-1-[[[2-deoxy-4-O-(diphenoxypyrophosphinyl)-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-β-D-glucopyranosyl]oxy]methyl]-2-oxoethyl]-3-[(1-oxotetradecyl)oxy]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 15 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2001:713123 HCPLUS

DN 135:267269

ED Entered STN: 28 Sep 2001

TI Mono- and disaccharides for the treatment of nitric oxide related disorders

IN Elliot, Gary; Johnson, David; Weber, Patricia A.; Sowell, Greg

PA Corixa Corp., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English  
 IC A61K031-00  
 CC 1-12 (Pharmacology)  
 FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070209	A2	20010927	WO 2001-US8513	20010315
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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PRAI	US 2000-190444P	P	20000317		
	US 2001-808669	A	20010314		
	WO 2001-US8513	W	20010315		

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2001070209	IC	A61K031-00
	WO 2001070209	ECLA	A61K031/70L15L; C07H015/04
	JP 2004521062	FTERM	4C057/BB02; 4C057/BB03; 4C057/CC03; 4C057/DD02; 4C057/DD03; 4C057/HH03; 4C057/JJ10; 4C086/AA02; 4C086/AA03; 4C086/EA05; 4C086/MA02; 4C086/MA06; 4C086/MA52; 4C086/MA55; 4C086/MA65; 4C086/NA14; 4C086/ZA36; 4C086/ZA51; 4C086/ZA54; 4C086/ZA59; 4C086/ZB35
OS	MARPAT 135:267269		
AB	Methods for treating diseases or conditions modulated or ameliorated by nitric oxide, particularly ischemia and reperfusion injury, are provided, using glycolipids structurally related to monophosphoryl lipid A but with notable reduction in proinflammatory and pyrogenic activity.		
ST	nitric oxide related disorder treatment disaccharide; monosaccharide nitric oxide related disorder treatment; ischemia reperfusion injury treatment nitric oxide disaccharide		
IT	Leg (amputation and reattachment, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury)		
IT	Artery (angioplasty, restenosis in, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)		
IT	Drug delivery systems (bolus; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)		
IT	Cytoprotective agents (cardioprotective; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)		
IT	Blood vessel (clamping, treatment of ischemia and reperfusion injury from; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)		
IT	Artery, disease		

(coronary, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Death  
(drowning, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Polyoxalkylenes, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(drug delivery systems containing; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems  
(emulsions; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Skin  
(flap translocation, treatment of ischemia and reperfusion injury from; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Hypoxia, animal  
(hypoxemia, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Heart, disease  
Intestine, disease  
(infarction, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Cytokines  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(inflammatory, low ability for induction of; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems  
(infusions; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems  
(injections, i.v.; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Reperfusion  
(injury; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity).

IT Drug delivery systems  
(lipid vesicles; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems  
(liposomes; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Interleukin 1 $\beta$   
Interleukin 8  
Tumor necrosis factors  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(low ability for induction of; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Anti-ischemic agents

Anticoagulants

Drug delivery systems

Fever and Hyperthermia

Inflammation

(mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Disaccharides

Monosaccharides

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Surgery

(myoplasty, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Emulsions

(oil-in-water, drug delivery systems containing; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems

(oral; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems

(parenterals; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Surgery

(plastic, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Intestine

(resection, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Artery, disease

(restenosis, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Shock (circulatory collapse)

(septic, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Bronchi

(spasm, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Artery

(stenting, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less

proinflammatory and pyrogenic activity)

IT Brain, disease  
(stroke, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Drug delivery systems  
(surfactant-containing vesicles; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Heart  
Thorax  
(surgery, treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Thrombolytics  
(treatment of ischemia and reperfusion injury from; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT Artery, disease  
Blood vessel, disease  
Lung, disease  
Multiple organ failure  
Pregnancy  
Surgery  
Thrombosis  
Transplant and Transplantation  
(treatment of ischemia and reperfusion injury in; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT 125978-95-2, Nitric oxide synthase  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(constitutive and inducible; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT 57-55-6, Propylene glycol, biological studies 64-17-5, Ethanol, biological studies 7732-18-5, Water, biological studies 25322-68-3, Polyethylene glycol  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(drug delivery systems containing; mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT 216014-36-7 216014-45-8 216014-55-0 216014-75-4  
216014-81-2 245515-64-4 245515-66-6  
245515-68-8 252042-16-3 252042-50-5 253119-91-4, RC-552  
362594-85-2 362594-86-3 362594-87-4 362594-88-5  
362594-89-6 362594-90-9 362594-91-0  
362594-92-1  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

IT 10102-43-9, Nitric oxide, biological studies  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

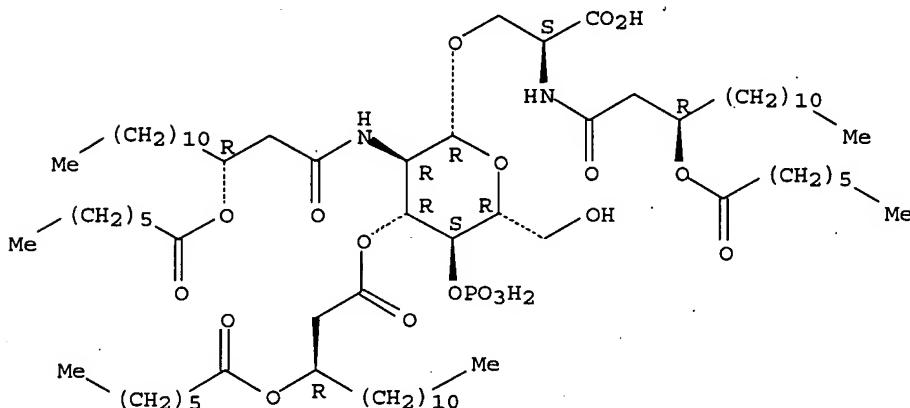
IT 216014-36-7  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or

effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (mono- and disaccharides for treatment of nitric oxide related disorders particularly ischemia and reperfusion injury but with less proinflammatory and pyrogenic activity)

RN 216014-36-7 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxoheptyl)oxy]tetradecyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 16 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2001:360008 HCPLUS

DN 134:353474

ED Entered STN: 18 May 2001

TI Preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors

IN Johnson, David A.; Sowell, C. Gregory

PA Corixa Corporation, USA

SO PCT Int. Appl., 147 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07H

CC 33-7 (Carbohydrates)

Section cross-reference(s): 1, 15, 34, 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001034617	A2	20010517	WO 2000-US31340	20001113
	WO 2001034617	A3	20011108		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6303347	B1	20011016	US 1999-439839	19991112
	CA 2391299	AA	20010517	CA 2000-2391299	20001113
	EP 1230250	A2	20020814	EP 2000-982119	20001113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

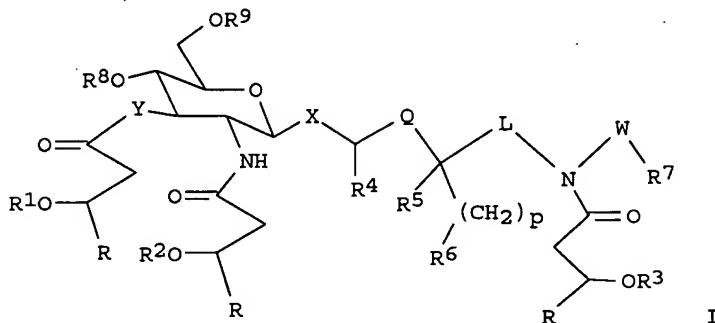
BR 2000015501	A	20030225	BR 2000-15501	20001113
JP 2003514783	T2	20030422	JP 2001-537329	20001113
NZ 518860	A	20041126	NZ 2000-518860	20001113
AU 2001019189	A5	20010606	AU 2001-19189	20011113
AU 773921	B2	20040610		
NO 2002002207	A	20020710	NO 2002-2207	20020508
PRAI US 1999-439839	A	19991112		
US 1997-853826	A2	19970508		
WO 2000-US31340	W	20001113		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2001034617	ICM	C07H
WO 2001034617	ECLA	C07H013/06C; C07H015/04D
US 6303347	NCL	435/101.000; 424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
	ECLA	C07H015/04D

OS MARPAT 134:353474  
GI



AB Aminoalkyl glucosaminide phosphate compds. (AGP) I were prepared wherein, X is selected from the group consisting of O and S at the axial or equatorial position; Y is selected from the group consisting of O and NH; Q is  $(CH_2)_n$ ; L is  $(CH_2)_m$ ; W is  $(CH_2)_q$ ; n, m, p, q are integers from 0 to 6; R is  $(CH_2)_{10}Me$ ; R1-R3 are the same or different and are normal fatty acyl residues having from 1 to about 20 carbon atoms and where one of R1-R3 is optionally hydrogen; R4 and R5 are the same or different and are selected from the group consisting of H and methyl; R6 and R7 are the same or different and are selected from the group consisting of H, hydroxy, alkoxy, phosphono, phosphonooxy, sulfo, sulfoxy, amino, mercapto, cyano, nitro, formyl and carboxy, and esters and amides thereof; and R8 and R9 are the same or different and are selected from the group consisting of phosphono and H, and at least one of R8 and R9 is phosphono, that are adjuvants and immuno-effectors are described and claimed. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immuno-effectors are also disclosed. Thus, N-[(R)-3-hydroxytetradecanoyl]-O-[2-deoxy-4-O-phosphono-2-[(R)-3-dodecanoyloxytetradecanoylamino]-3-O-[(R)-3-tetradecanoyloxytetradecanoyl]- $\alpha$ -L-D-glucopyranosyl]-L-serine triethylammonium salt was prepared and tested in mice as adjuvants and immuno-effectors. Mice vaccinated with formalin-inactivated influenza and the AGP compds. of the subject invention mounted a protective immune response to an influenza challenge as well as produced antibody to that antigen.

ST antiinfluenza IgG immunoefector aminoalkyl glucosaminide phosphate prep; cytokine adjuvant immunoefector antitetanus toxoid amino acid prep

glycoside; aminoalkyl glucosaminide phosphate prepn adjuvant  
immunoefector antitetanus toxoid antibody

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G1; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G2a; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G2b; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunoglobulins  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(G; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Immunostimulants  
(adjuvants; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Influenza  
(anti; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Macrophage  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Amino acids, preparation  
Antibodies  
Cytokines  
Glycosides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT Toxoids  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(tetanus; preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P  
216013-82-0P 216013-88-6P 216013-97-7P  
216014-06-1P 216014-15-2P 216014-21-0P  
216014-29-8P 216014-37-8P 216014-46-9P 216014-50-5P  
216014-56-1P 216014-63-0P 216014-69-6P 216014-76-5P  
216014-82-3P 216014-88-9P 216014-92-5P 216014-98-1P  
339078-59-0P 339078-61-4P 339078-63-6P 339078-65-8P  
339078-67-0P 339078-69-2P 339078-71-6P  
339078-73-8P 339078-75-0P 339078-77-2P  
339078-79-4P 339078-81-8P 339078-85-2P 339079-17-3P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 109361-17-3  
RL: CAT (Catalyst use); USES (Uses)  
(preparation of aminoalkyl glucosaminide phosphates and their use as adjuvants and immuno-effectors)

IT 66-84-2 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride

112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8,  
 Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl  
 chloride 2456-81-7, 4-Pyrrolidinopyridine 2528-61-2, Heptanoyl  
 chloride 17341-93-4, 2,2,2-Trichloroethyl chloroformate 22348-97-6,  
 Methyl 3-oxotetradecanoate 22572-40-3, 1-(3-Dimethylaminopropyl)-3-  
 ethylcarbodiimide methiodide 58577-87-0 65414-74-6, L-Serinamide  
 hydrochloride 66270-36-8, 2,2,2-Trichloro-1,1-dimethylethyl  
 chloroformate 66937-71-1 109977-90-4 122078-72-2 133099-79-3,  
 D-Serine benzyl ester 134304-48-6 166193-98-2 190586-91-5  
 216014-70-9 339078-52-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as  
 adjuvants and immuno-effectors)

IT 1738-72-3P 2524-64-3P, Diphenyl chlorophosphate 76062-98-1P  
 87357-76-4P 91578-89-1P 91681-56-0P 122105-45-7P 122210-01-9P  
 186383-49-3P 216013-03-5P 216013-05-7P 216013-06-8P 216013-07-9P  
 216013-10-4P 216013-12-6P 216013-13-7P 216013-14-8P 216013-15-9P  
 216013-16-0P 216013-20-6P 216013-21-7P 216013-22-8P 216013-26-2P  
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 216013-79-5P 216013-80-8P 216013-83-1P 216013-85-3P 216013-89-7P  
 216013-90-0P 216013-91-1P 216013-92-2P 216013-93-3P 216013-95-5P  
 216013-98-8P 216013-99-9P 216014-00-5P 216014-01-6P 216014-02-7P  
 216014-04-9P 216014-07-2P 216014-08-3P 216014-09-4P 216014-11-8P  
 216014-12-9P 216014-13-0P 216014-16-3P 216014-17-4P 216014-19-6P  
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 339078-87-4P 339079-15-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(preparation of aminoalkyl glucosaminide phosphates and their use as  
 adjuvants and immuno-effectors)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bulusu, M; J Med Chem 1992, V35, P3463 HCPLUS
- (2) Ikeda, K; Chem Pharm Bull 1993, V41(10), P1879 HCPLUS
- (3) Miyajima, K; Chem Pharm Bull 1996, V44(12), P2268
- (4) Shimizu, T; Chem Pharm Bull 1985, V33(10), P4621 HCPLUS
- (5) Shimizu, T; Int J Immunopharmac 1994, V16(8), P659 HCPLUS
- (6) Shimizu, T; Int J Immunopharmac 1995, V17(5), P425 HCPLUS

IT 216013-82-0P

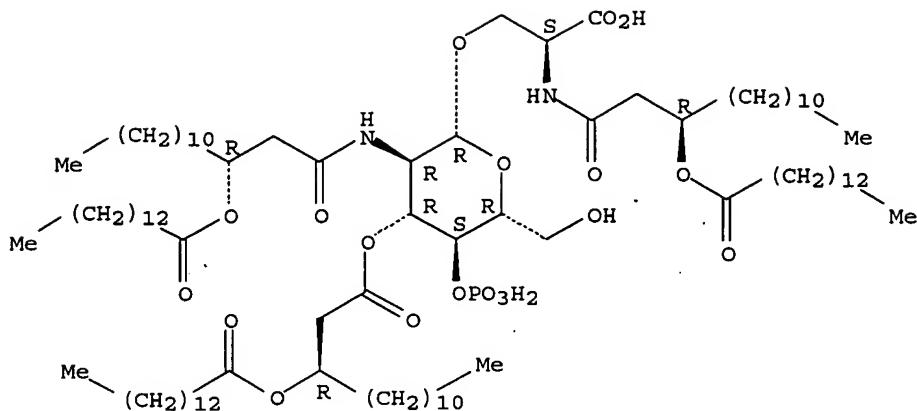
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosaminide phosphates and their use as  
 adjuvants and immuno-effectors)

RN 216013-82-0 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-  
 β-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-  
 , compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

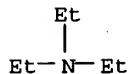
CRN 216013-81-9  
CMF C93 H175 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
CMF C6 H15 N



L37 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:769093 HCAPLUS  
 DN 132:137639  
 ED Entered STN: 06 Dec 1999  
 TI Synthesis and biological evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide 4-phosphates (AGPs). [Erratum to document cited in CA131:272113]  
 AU Johnson, David A.; Sowell, C. Gregory; Johnson, Craig L.; Livesay, Mark T.; Keegan, David S.; Gustafson, Gary L.; Rhodes, Michael J.; Ulrich, J. Terry; Ward, Jon R.; Cantrell, John L.; Brookshire, Valerie G.  
 CS Pharmaceutical Discovery Division, Ribi ImmunoChem Research, Inc., Hamilton, MT, 59840, USA  
 SO Bioorganic & Medicinal Chemistry Letters (1999), 9(22), 3260  
 CODEN: BMCL8; ISSN: 0960-894X  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 CC 33-7 (Carbohydrates)  
 Section cross-reference(s): 1  
 AB The name of coauthor Gary L. Gustafson was omitted from the list of authors' names; the complete list is reprinted.  
 ST erratum vaccine adjuvant aminodeoxyphosphonoglucopyranoside; vaccine adjuvant aminodeoxyphosphonoglucopyranoside erratum; aminoalkyl serine glucosaminide phosphate prepn erratum; serine glucosaminide phosphate prepn immunostimulant erratum  
 IT Immunostimulants  
 (adjuvants; synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates (Erratum))

IT T cell (lymphocyte)  
 (cytotoxic; synthesis and biol. evaluation of a new class of vaccine  
 adjuvants: aminoalkyl glucosaminide phosphates (Erratum))

IT Immunostimulants  
 Vaccines  
 (synthesis and biol. evaluation of a new class of vaccine adjuvants:  
 aminoalkyl glucosaminide phosphates (Erratum))

IT Toxoids  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)  
 (tetanus; synthesis and biol. evaluation of a new class of vaccine  
 adjuvants: aminoalkyl glucosaminide phosphates (Erratum))

IT 216013-08-0P 216013-18-2P 216013-81-9P 216013-87-5P  
 216014-05-0P 216014-14-1P 216014-28-7P  
 216014-45-8P 216014-49-2P 216014-55-0P 216014-62-9P 216014-68-5P  
 216014-75-4P 216014-81-2P 216014-87-8P  
 245515-64-4P 245515-66-6P 245515-68-8P 245515-70-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation)  
 (synthesis and biol. evaluation of a new class of vaccine adjuvants:  
 aminoalkyl glucosaminide phosphates (Erratum))

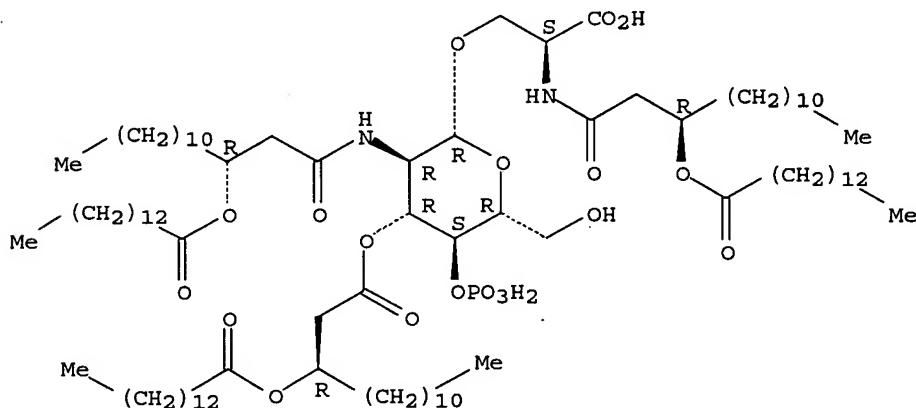
IT 216013-92-2 216014-11-8 216014-33-4 216014-47-0 216014-52-7  
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 216014-83-4 245515-71-3 245515-73-5 245515-74-6 245515-75-7  
 245515-76-8 245515-77-9 245515-78-0 245515-79-1 245515-80-4  
 245515-82-6 245515-83-7 245515-84-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis and biol. evaluation of a new class of vaccine adjuvants:  
 aminoalkyl glucosaminide phosphates (Erratum))

IT 216013-81-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation)  
 (synthesis and biol. evaluation of a new class of vaccine adjuvants:  
 aminoalkyl glucosaminide phosphates (Erratum))

RN 216013-81-9 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-  
 [[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-  
 β-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry:



L37 ANSWER 18 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:536699 HCPLUS  
 DN 131:272113

ED Entered STN: 27 Aug 1999  
 TI Synthesis and biological evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide 4-phosphates (AGPs)  
 AU Johnson, David A.; Sowell, C. Gregory; Johnson, Craig L.; Livesay, Mark T.; Keegan, David S.; Rhodes, Michael J.; Ulrich, J. Terry; Ward, Jon R.; Cantrell, John L.; Brookshire, Valerie G.  
 CS Pharmaceutical Discovery Division, Ribi ImmunoChem Research, Inc., Hamilton, MT, 59840, USA  
 SO Bioorganic & Medicinal Chemistry Letters (1999), 9(15), 2273-2278  
 CODEN: BMCL88; ISSN: 0960-894X  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 CC 33-7 (Carbohydrates)  
 Section cross-reference(s): 1  
 AB A novel series of acylated  $\omega$ -aminoalkyl 2-amino-2-deoxy-4-phosphono- $\beta$ -D-glucopyranosides (aminoalkyl glucosaminide 4-phosphates) was synthesized and screened for immunostimulant activity. Several of these compds. enhance the production of tetanus toxoid-specific antibodies in mice and augment vaccine-induced cytotoxic T cells against EG.7-ova target cells.  
 ST vaccine adjuvant aminodeoxyphosphonoglucoopyranoside; aminoalkyl serine glucosaminide phosphate prepn immunostimulant  
 IT Immunostimulants  
     (adjuvants; synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 IT T cell (lymphocyte)  
     (cytotoxic; synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 IT Immunostimulants  
 Vaccines  
     (synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 IT Toxoids  
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
     (tetanus; synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 IT 216013-08-0P 216013-18-2P 216013-81-9P 216013-87-5P  
     216014-05-0P 216014-14-1P 216014-28-7P  
     216014-45-8P 216014-49-2P 216014-55-0P 216014-62-9P 216014-68-5P  
     216014-75-4P 216014-81-2P 216014-87-8P  
     245515-64-4P 245515-66-6P 245515-68-8P 245515-70-2P  
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
     (synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 IT 216013-92-2 216014-11-8 216014-33-4 216014-47-0 216014-52-7  
     216014-57-2 216014-59-4 216014-65-2 216014-72-1 216014-77-6  
     216014-83-4 245515-71-3 245515-73-5 245515-74-6 245515-75-7  
     245515-76-8 245515-77-9 245515-78-0 245515-79-1 245515-80-4  
     245515-82-6 245515-83-7 245515-84-8  
     RL: RCT (Reactant); RACT (Reactant or reagent)  
     (synthesis and biol. evaluation of a new class of vaccine adjuvants: aminoalkyl glucosaminide phosphates)  
 RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Abiko, A; Tetrahedron Lett 1992, V33, P5517 HCPLUS  
 (2) Beutler, B; Ann Rev Immunol 1989, V7, P625 HCPLUS  
 (3) DeForge, L; J Immunol 1992, V148, P2133 HCPLUS  
 (4) Durum, S; Ann Rev Immunol 1985, V3, P263 HCPLUS  
 (5) Fukase, K; Tetrahedron 1998, V54, P4033 HCPLUS  
 (6) Gustafson, G; Bacterial Endotoxins: Lipopolysaccharides from Genes to Therapy, Progress in Clinical and Biological Research 1995, V392, P567 HCPLUS

(7) Hibbs, J; Biochem Biophys Res Commun 1988, V157, P87 HCPLUS  
 (8) Johnson, A; Clin Microbiol Rev 1994, V7, P277 HCPLUS  
 (9) Johnson, D; J Carbohydr Chem 1998, V17, P1421 HCPLUS  
 (10) Johnson, D; J Med Chem submitted  
 (11) Kawai, Y; Infect Immun 1989, V57, P2086 HCPLUS  
 (12) Keegan, D; Tetrahedron: Asymmetry 1996, V7, P3559 HCPLUS  
 (13) Kiso, M; Carbohydr Res 1987, V162, P127 HCPLUS  
 (14) Kusama, T; Chem Pharm Bull 1991, V39, P3244 HCPLUS  
 (15) Moore, M; Cell 1988, V55, P777  
 (16) Myers, K; Cellular and Molecular Aspects of Endotoxin Reactions 1990, V1, P145  
 (17) Nerad, J; J Leukocyte Biol 1992, V52, P687 HCPLUS  
 (18) Quereshi, N; The Bacteria 1990, V11, P319  
 (19) Rudbach, J; Theory and Practical Application of Adjuvants 1995, P287  
 (20) Seydel, U; Immunobiol 1993, V187, P191 HCPLUS  
 (21) Shiozaki, M; Tetrahedron 1998, V54, P11861 HCPLUS  
 (22) Snapper, C; Fundamental Immunology 4th ed 1999, P831  
 (23) Ulrich, J; Vaccine Design: The Subunit and Adjuvant Approach 1995, P495  
 HCPLUS  
 (24) Werner, G; Eur J Biochem 1996, V242, P1 HCPLUS

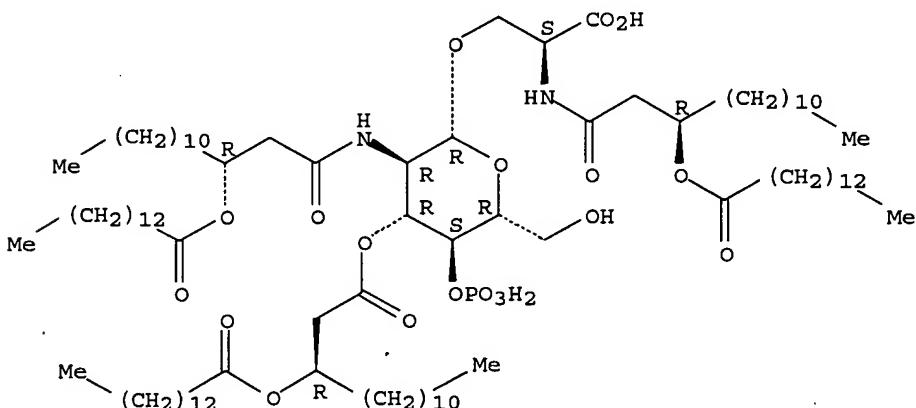
IT 216013-81-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (synthesis and biol. evaluation of a new class of vaccine adjuvants:  
 aminoalkyl glucosaminide phosphates)

RN 216013-81-9 HCPLUS

CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-  
 β-D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 19 OF 19 HCPLUS COPYRIGHT 2005 ACS on STN

AN 1998:745066 HCPLUS

DN 130:14164

ED Entered STN: 24 Nov 1998

TI Preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors

IN Johnson, David A.; Sowell, C. Gregory

PA Ribi Immunochem Research, Inc., USA

SO PCT Int. Appl., 140 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07H015-04

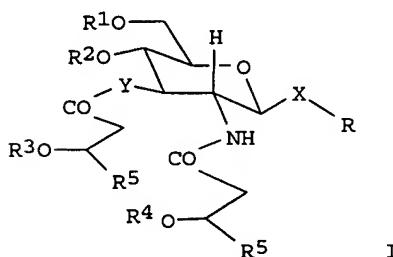
ICS A61K031-70  
 CC 33-7 (Carbohydrates)  
 Section cross-reference(s): 1, 15, 63

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9850399	A1	19981112	WO 1998-US9385	19980507
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6113918	A	20000905	US 1997-853826	19970508
	CA 2288601	AA	19981112	CA 1998-2288601	19980507
	AU 9874747	A1	19981127	AU 1998-74747	19980507
	AU 740663	B2	20011108		
	EP 983286	A1	20000308	EP 1998-922138	19980507
	EP 983286	B1	20040728		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9809791	A	20000627	BR 1998-9791	19980507
	JP 2002512623	T2	20020423	JP 1998-548512	19980507
	NZ 500938	A	20020531	NZ 1998-500938	19980507
	AP 1181	A	20030630	AP 1999-1693	19980507
	W: GH, GM, KE, LS, MW, SD, SZ, UG, ZW				
	AT 272067	E	20040815	AT 1998-922138	19980507
	PL 188046	B1	20041130	PL 1998-343205	19980507
	ES 2224397	T3	20050301	ES 1998-922138	19980507
	MX 9910262	A	20000831	MX 1999-10262	19991108
PRAI	US 1997-853826	A	19970508		
	WO 1998-US9385	W	19980507		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9850399	ICM	C07H015-04
	ICS	A61K031-70
WO 9850399	ECLA	C07H015/04D
US 6113918	NCL	424/278.100; 536/001.110; 536/018.400; 536/117.000; 536/119.000
	ECLA	C07H015/04D
AP 1181	ECLA	C07H015/04D
OS MARPAT 130:14164		
GI		



AB Aminoalkyl glucosamine phosphate compds. I (R = substituted alkyl; R1, R2 = H, phosphono; R3, R4 = fatty acid residue; R5 = undecyl; X = O, S; Y = O, NH) were prepared as adjuvants and immunoeffectors. The compds. have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon)

group. Compds. are phosphorylated at the 4 or 6 carbon on the glucosamine ring and comprise three 3-alkanoyloxyalkanoyl residues. The compds. augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compds. as adjuvants and immunoeffectors are also disclosed. Thus, N-carboxymethyl-N-[(R)-3-decanoyloxytetradecanoyl]-3-aminopropyl-2-deoxy-4-O-phosphono-2-[(R)-3-decanoyloxytetradecanoylamino]-3-O-[(R)-3-decanoyloxytetradecanoyl]-β-D-glucopyranoside triethylammonium salt was prepared and tested as adjuvant and immunoefector for anti-tetanus and anti-influenza activities.

ST virucide vaccine aminoalkyl glucosamine phosphate prep; cytokine prodn vaccine aminoalkyl glucosamine phosphate; vaccine antiinfluenza aminoalkyl glucosamine phosphate prep; immunization antitetanus aminoalkyl glucosamine phosphate prep; antitetanus IgG aminoalkyl glucosamine phosphate prep; aminoalkyl glucosamine phosphate prep immunoefector adjuvant

IT Immunoglobulins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (G; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT Immunostimulants  
 (adjuvants; preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT Antiviral agents  
 Immunization  
 Vaccines  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT Glycosides  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT Antibodies  
 Cytokines  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT 216013-09-1P 216013-19-3P 216013-24-0P 216013-34-2P 216013-41-1P  
 216013-47-7P 216013-52-4P 216013-59-1P 216013-65-9P 216013-73-9P  
 216013-82-0P 216013-88-6P 216013-97-7P  
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 216014-82-3P 216014-88-9P 216014-92-5P 216014-98-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT 109361-17-3  
 RL: CAT (Catalyst use); USES (Uses)  
 (preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoefectors)

IT 76062-98-1P 87357-76-4P 91681-56-0P 122105-45-7P 122210-01-9P  
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RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 66-84-2, D-Glucosamine hydrochloride 99-73-0, 2,4'-Dibromoacetophenone 111-64-8, Octanoyl chloride 112-13-0, Decanoyl chloride 112-16-3, Lauroyl chloride 112-37-8, Undecanoic acid 112-64-1, Myristoyl chloride 764-85-2, Nonanoyl chloride 1738-72-3, L-Serine benzyl ester 2528-61-2, Heptanoyl chloride 22348-97-6, Methyl 3-oxotetradecanoate 58577-87-0 65414-74-6, L-Serinamide hydrochloride 66270-36-8 66937-71-1 91578-89-1 122078-72-2 133099-79-3, D-Serine benzyl ester 142982-11-4 166193-98-2 216013-74-0 216014-70-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Eustache, J; Carbohydrate Research 1994, V251, P251 HCPLUS
- (2) Ikeda, K; Chemical and Pharmaceutical Bulletin 1993, V41(10), P1879 HCPLUS
- (3) Miyajima, K; Chemical and Pharmaceutical Bulletin 1996, V44(12), P2268

IT 216013-82-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

RN 216013-82-0 HCPLUS

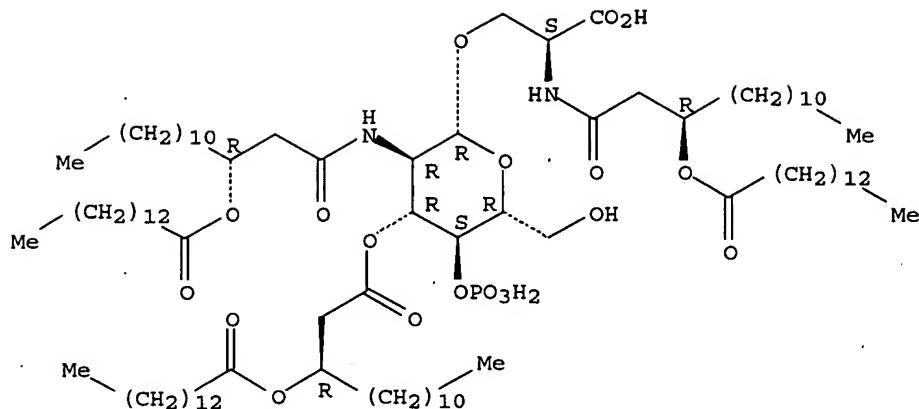
CN L-Serine, O-[2-deoxy-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-2-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono- $\beta$ -D-glucopyranosyl]-N-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

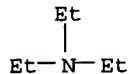
CRN 216013-81-9

CMF C93 H175 N2 O19 P

Absolute stereochemistry.



CM 2

CRN 121-44-8  
CMF C6 H15 N

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 CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 08:44:19 ON 05 AUG 2005  
 CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitrn 138 tot

L38 ANSWER 1 OF 12 USPATFULL on STN  
 AN 2005:125210 USPATFULL  
 TI Processes for the production of aminoalkyl glucosaminide phosphate and  
 disaccharide immunoeffectors, and intermediates therefor  
 IN Johnson, David A., Hamilton, MT, UNITED STATES  
 Johnson, Craig L., Hamilton, MT, UNITED STATES  
 Bazin-Lee, Helene G., Stevensville, MT, UNITED STATES  
 Sowell, C. Gregory, Mukilteo, WA, UNITED STATES  
 PA Corixa Corporation, a corporation of the state of Delaware,  
 Seattle, WA, UNITED STATES (U.S. corporation)  
 PI US 2005107600 A1 20050519  
 AI US 2004-897194 A1 20040721 (10)  
 RLI Continuation-in-part of Ser. No. US 2004-472991, filed on 12 Aug 2004,  
 PENDING A 371 of International Ser. No. WO 2003-US21504, filed on 8 Jul  
 2003  
 PRAI US 2002-394487P 20020708 (60)  
 DT Utility  
 FS APPLICATION  
 LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH  
 FLOOR, SAN FRANCISCO, CA, 94111-3834, US  
 CLMN Number of Claims: 115  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1991

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to processes for production of alkylamino glucosaminide phosphate compounds, and of disaccharide compounds, including various novel intermediates and intermediate processes. In one aspect, glycosyl halides are produced by reaction of an O-silyl glycoside with a dihalomethyl alkyl ether.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216014-15-2P

(processes for the production of amino-alkyl glucosaminide phosphate and disaccharide immunoeffectors, and intermediates therefor via glycosylation reaction)

L38 ANSWER 2 OF 12 USPATFULL on STN

AN 2004:335912 USPATFULL

TI Processes for the production of aminoalkyl glucosaminide phosphate and disaccharide immunoeffectors and intermediates therefor

IN Johnson, David A., Hamilton, MT, UNITED STATES

Johnson, Craig L., Hamilton, MT, UNITED STATES

Bazin, Helene G., Stevensville, MT, UNITED STATES

Sowell, C. Gregory, Mukilteo, WA, UNITED STATES

PI US 2004267007 A1 20041230

AI US 2004-472991 A1 20040812 (10)

WO 2003-US21504 20030708

PRAI US 2002-60394487 20020708

US 2003-60438585 20030106

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 113

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1677

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to processes for production of alkylamino glucosaminide phosphate compounds, and of disaccharide compounds, including various novel intermediates and intermediate processes. In one aspect, glycosyl halides are produced by reaction of an O-silyl glycoside with a dihalomethyl alkyl ether.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216014-15-2P

(processes for production of aminoalkyl glucosaminide phosphate and disaccharide potential immunoeffectors via silylation and halogenation reactions)

L38 ANSWER 3 OF 12 USPATFULL on STN

AN 2004:190707 USPATFULL

TI Prophylactic and therapeutic treatment of infectious and other diseases with mono-and disaccharide-based compounds

IN Persing, David H., Redmond, WA, UNITED STATES

Crane, Richard T., Hamilton, MT, UNITED STATES

Elliott, Gary T., Stevensville, MT, UNITED STATES

Ulrich, J. Terry, Corvallis, MT, UNITED STATES

Lacy, Michael J., Hamilton, MT, UNITED STATES

Johnson, David A., Hamilton, MT, UNITED STATES

Baldridge, Jory R., Victor, MT, UNITED STATES

Wang, Rong, Missoula, MT, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)

PI US 2004147480 A1 20040729

AI US 2004-757233 A1 20040113 (10)

RLI Continuation of Ser. No. US 2001-991376, filed on 20 Nov 2001, PENDING

Continuation-in-part of Ser. No. US 2001-861466, filed on 18 May 2001,

PENDING

PRAI US 2001-281567P 20010404 (60)  
 US 2000-205820P 20000519 (60)  
 DT Utility  
 FS APPLICATION  
 LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH  
 FLOOR, SAN FRANCISCO, CA, 94111-3834  
 CLMN Number of Claims: 35  
 ECL Exemplary Claim: 1  
 DRWN 26 Drawing Page(s)  
 LN.CNT 1470

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for treating or ameliorating diseases and other  
 conditions, such as infectious diseases, autoimmune diseases and  
 allergies are provided. The methods employ mono- and disaccharide-based  
 compounds for selectively stimulating immune responses in animals and  
 plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0 216013-88-6 216013-97-7  
 216014-15-2 216014-21-0 216014-29-8  
 216014-37-8 376394-26-2  
 (prophylactic and therapeutic treatment of infectious and other  
 diseases with mono- and disaccharide-based compds. in relation to  
 toxicity)

L38 ANSWER 4 OF 12 USPATFULL on STN  
 AN 2003:324306 USPATFULL  
 TI Compositions and methods for viral delivery  
 IN Mossman, Sally, Seattle, WA, UNITED STATES  
 Evans, Lawrence, Seattle, WA, UNITED STATES  
 Swanson, Ryan M., Seattle, WA, UNITED STATES  
 PA Corixa Corporation, Seattle, WA, 98104 (U.S. corporation)  
 PI US 2003228279 A1 20031211  
 AI US 2002-283484 A1 20021029 (10)  
 PRAI US 2002-369715P 20020403 (60)  
 US 2001-335512P 20011031 (60)

DT Utility  
 FS APPLICATION  
 LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH  
 FLOOR, SAN FRANCISCO, CA, 94111-3834  
 CLMN Number of Claims: 34  
 ECL Exemplary Claim: 1  
 DRWN 7 Drawing Page(s)

LN.CNT 2866

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods comprising a recombinant virus and an  
 immunostimulant are provided for enhancing the immune response to a  
 polypeptide expressed from the recombinant virus. Preferably this is  
 done without also enhancing the neutralizing antibody response to the  
 recombinant virus. Illustrative compositions comprise an adenovirus and  
 an adjuvant such as, for example, monophosphoryl lipid A, an alkyl  
 glucosaminide phosphate, a saponin, or a combination thereof. The  
 disclosed compositions and methods are useful, for example, in the  
 treatment of diseases such as cancer or infectious disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 521333-28-8  
 (viral vector and immunostimulant for delivering vaccine and enhancing  
 immune response without causing neutralizing antibody response to viral  
 vector)

L38 ANSWER 5 OF 12 USPATFULL on STN  
 AN 2003:283116 USPATFULL  
 TI Aminoalkyl glucosaminide phosphate compounds and their use as adjuvants  
 and immunoeffectors  
 IN Johnson, David A., Hamilton, MT, UNITED STATES

Sowell, C. Gregory, Mukilteo, WA, UNITED STATES  
 PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S.  
 corporation)  
 PI US 2003199460 A1 20031023  
 AI US 2002-137730 A1 20020430 (10)  
 RLI Continuation-in-part of Ser. No. US 2002-43086, filed on 8 Jan 2002,  
 PENDING Continuation-in-part of Ser. No. US 2001-905160, filed on 12 Jul  
 2001, PENDING Continuation of Ser. No. US 1999-439839, filed on 12 Nov  
 1999, GRANTED, Pat. No. US 6303347 Continuation-in-part of Ser. No. US  
 1997-853826, filed on 8 May 1997, GRANTED, Pat. No. US 6113918  
 DT Utility  
 FS APPLICATION  
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,  
 SEATTLE, WA, 98104-7092  
 CLMN Number of Claims: 48  
 ECL Exemplary Claim: 1  
 DRWN 4 Drawing Page(s)  
 LN.CNT 5737  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Aminoalkyl glucosaminide phosphate (AGP) compounds that are adjuvants  
 and immunoeffectors are described and claimed. The compounds have a  
 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl  
 (aglycon) group. Compounds are phosphorylated at the 4 or 6 carbon on  
 the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl  
 residues. The compounds augment antibody production in immunized animals  
 as well as stimulate cytokine production and activate macrophages.  
 Compositions and methods for using the compounds as adjuvants and  
 immunoeffectors are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0P 216013-88-6P 216013-97-7P  
 216014-06-1P 216014-15-2P 216014-21-0P  
 216014-29-8P 216014-37-8P 216014-76-5P  
 216014-82-3P 339078-59-0P 339078-61-4P  
 339078-67-0P 339078-69-2P 339078-71-6P  
 339078-73-8P 339078-75-0P 339078-77-2P  
 339079-17-3P  
 (preparation of aminoalkyl glucosaminide phosphates and their use as  
 adjuvants and immuno-effectors)  
 IT 216014-80-1P 216014-85-6P  
 (preparation of aminoalkyl glucosaminide phosphates and their use as  
 adjuvants and immuno-effectors)

L38 ANSWER 6 OF 12 USPATFULL on STN  
 AN 2003:201370 USPATFULL  
 TI Prophylactic and therapeutic treatment of infectious and other diseases  
 with mono- and disaccharide-based compounds  
 IN Persing, David H., Redmond, WA, UNITED STATES  
 Crane, Richard T., Hamilton, MT, UNITED STATES  
 Elliot, Gary T., Stevensville, MT, UNITED STATES  
 Ulrich, J. Terry, Corvallis, MT, UNITED STATES  
 Lacy, Michael J., Hamilton, MT, UNITED STATES  
 Johnson, David A., Hamilton, MT, UNITED STATES  
 Baldridge, Jory R., Victor, MT, UNITED STATES  
 Wang, Rong, Missoula, MT, UNITED STATES  
 PI US 2003139356 A1 20030724  
 AI US 2001-991376 A1 20011120 (9)  
 RLI Continuation-in-part of Ser. No. US 2001-861466, filed on 18 May 2001,  
 PENDING  
 DT Utility  
 FS APPLICATION  
 LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH  
 FLOOR, SAN FRANCISCO, CA, 94111-3834  
 CLMN Number of Claims: 37  
 ECL Exemplary Claim: 1  
 DRWN 35 Drawing Page(s)

LN.CNT 1561

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compounds for selectively stimulating immune responses in animals and plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0 216013-88-6, RC 560 216013-97-7,  
 RC 538 216014-06-1 216014-15-2, RC 527  
 216014-21-0, RC 537 216014-29-8, RC 555  
 216014-37-8, RC 554 216014-82-3 376394-26-2,  
 RC 526 566170-23-8 566170-24-9 566170-25-0  
 566170-26-1 566170-28-3 566170-30-7  
 (prophylaxis and treatment of infectious diseases and allergy with mono- and disaccharide-based compds.)

L38 ANSWER 7 OF 12 USPATFULL on STN

AN 2003:153364 USPATFULL  
 TI Phophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds  
 IN Persing, David H., Sammamish, WA, UNITED STATES  
 Crane, Richard Thomas, Hamilton, MT, UNITED STATES  
 Elliott, Gary T., Pacifica, CA, UNITED STATES  
 Ulrich, J. Terry, Corvallis, MT, UNITED STATES  
 Lacy, Michael J., Hamilton, MT, UNITED STATES  
 Johnson, David A., Hamilton, MT, UNITED STATES  
 Baldridge, Jory R., Victor, MT, UNITED STATES  
 Wang, Rong, Missoula, MT, UNITED STATES  
 PI US 2003105032 A1 20030605  
 AI US 2002-128156 A1 20020422 (10)  
 RLI Continuation-in-part of Ser. No. US 2001-991376, filed on 20 Nov 2001,  
 PENDING Continuation-in-part of Ser. No. US 2001-861466, filed on 18 May  
 2001, PENDING  
 PRAI US 2001-281567P 20010404 (60)  
 US 2000-205820P 20000519 (60)  
 DT Utility  
 FS APPLICATION  
 LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH  
 FLOOR, SAN FRANCISCO, CA, 94111-3834  
 CLMN Number of Claims: 37  
 ECL Exemplary Claim: 1  
 DRWN 35 Drawing Page(s)  
 LN.CNT 1656

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compounds for selectively stimulating immune responses in animals and plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0 216013-88-6 216013-97-7  
 216014-15-2 216014-21-0 216014-29-8  
 216014-37-8 376394-26-2  
 (phophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

L38 ANSWER 8 OF 12 USPATFULL on STN

AN 2003:134554 USPATFULL  
 TI Aminoalkyl glucosaminide phosphate compounds and their use as adjuvants and immunoeffectors  
 IN Johnson, David A., Hamilton, MT, UNITED STATES  
 Sowell, C. Gregory, Mukilteo, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, 98104 (U.S. corporation)  
 PI US 2003092643 A1 20030515  
 AI US 2002-43086 A1 20020108 (10)  
 RLI Continuation-in-part of Ser. No. US 2001-905160, filed on 12 Jul 2001,  
 PENDING Continuation of Ser. No. US 1999-439839, filed on 12 Nov 1999,  
 GRANTED, Pat. No. US 6303347 Continuation-in-part of Ser. No. US  
 1997-853826, filed on 8 May 1997, GRANTED, Pat. No. US 6113918

DT Utility  
 FS APPLICATION  
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,  
 SEATTLE, WA, 98104-7092  
 CLMN Number of Claims: 48  
 ECL Exemplary Claim: 1  
 DRWN 4 Drawing Page(s)  
 LN.CNT 5672

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aminoalkyl glucosaminide phosphate (AGP) compounds that are adjuvants and immunoeffectors are described and claimed. The compounds have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compounds are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3- alkanoyloxyalkanoyl residues. The compounds augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Compositions and methods for using the compounds as adjuvants and immunoeffectors are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216014-80-1P 216014-85-6P  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)  
 IT 216014-37-8P 339078-67-0P 339078-71-6P  
 339078-75-0P 339078-77-2P 339079-17-3P  
 525604-83-5P  
 (vaccine compns. comprising aminoalkyl glucosaminide phosphate compds. as adjuvants and immunoeffectors for treating cancerous and infectious diseases)

L38 ANSWER 9 OF 12 USPATFULL on STN

AN 2002:149148 USPATFULL  
 TI Prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds  
 IN Persing, David H., Redmond, WA, UNITED STATES  
 Crane, Richard Thomas, Hamilton, WA, UNITED STATES  
 Elliott, Gary T., Stevensville, MT, UNITED STATES  
 Ulrich, J. Terry, Corvallis, MT, UNITED STATES  
 Lacy, Michael J., Hamilton, MT, UNITED STATES  
 Johnson, David A., Hamilton, MT, UNITED STATES  
 Baldridge, Jory R., Victor, MT, UNITED STATES  
 Wang, Rong, Missoula, MT, UNITED STATES

PI US 2002077304 A1 20020620  
 US 6800613 B2 20041005  
 AI US 2001-861466 A1 20010518 (9)  
 PRAI US 2001-281567P 20010404 (60)  
 US 2000-205820P 20000519 (60)

DT Utility  
 FS APPLICATION  
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,  
 SEATTLE, WA, 98104-7092  
 CLMN Number of Claims: 29  
 ECL Exemplary Claim: 1  
 DRWN 14 Drawing Page(s)  
 LN.CNT 1143

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and

allergies are provided. The methods employ mono- and disaccharide-based compounds for selectively stimulating immune responses in animals and plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 376394-26-2, RC 526 376394-27-3, RC 554  
 376394-28-4, RC 555 376394-29-5, RC 537  
 376394-30-8, RC 527 376394-31-9, RC 538  
 376394-32-0, RC 560 376394-46-6, RC 512  
 (prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compds. in relation to toxicity)

L38 ANSWER 10 OF 12 USPATFULL on STN

AN 2002:50623 USPATFULL

TI Aminoalkyl glucosamine phosphate compounds and their use as adjuvants and immunoeffectors

IN Johnson, David A., Hamilton, MT, United States  
 Sowell, C. Gregory, Hamilton, MT, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6355257 B1 20020312

AI US 1998-74720 19980507 (9)

RLI Continuation-in-part of Ser. No. US 1997-853826, filed on 8 May 1997

DT Utility

FS GRANTED

EXNAM Primary Examiner: Park, Hankyel

LREP Kullick, Ronald H.

CLMN Number of Claims: 6

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 3451

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aminoalkyl glucosamine phosphate compounds that are adjuvants and immunoeffectors are described and claimed. The compounds have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compounds are phosphorylated at the 4 or 6 carbon on the glucosamine ring and comprise three 3-alkanoyloxyalkanoyl residues. The compounds augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compounds as adjuvants and immunoeffectors are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0P 216013-88-6P 216013-97-7P

216014-06-1P 216014-15-2P 216014-21-0P

216014-29-8P 216014-37-8P 216014-76-5P

216014-82-3P

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

IT 216014-80-1P 216014-85-6P

(preparation of aminoalkyl glucosamine phosphates and their use as adjuvants and immunoeffectors)

L38 ANSWER 11 OF 12 USPATFULL on STN

AN 2001:178851 USPATFULL

TI Aminoalkyl glucosaminide phosphate compounds and their use as adjuvants and immunoeffectors

IN Johnson, David A., Hamilton, MT, United States  
 Sowell, C. Gregory, Kirkland, WA, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6303347 B1 20011016

AI US 1999-439839 19991112 (9)

RLI Continuation-in-part of Ser. No. US 1997-853826, filed on 8 May 1997, now patented, Pat. No. US 6113918

DT Utility

FS GRANTED  
 EXNAM Primary Examiner: Park, Hankyel T.  
 LREP Seed Intellectual Property Law Group PLLC  
 CLMN Number of Claims: 36  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 4405

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aminoalkyl glucosaminide phosphate (AGP) compounds that are adjuvants and immunoeffectors are described and claimed. The compounds have a 2-deoxy-2-amino glucose in glycosidic linkage with an aminoalkyl (aglycon) group. Compounds are phosphorylated at the 4 or 6 carbon on the glucosaminide ring and comprise three 3-alkanoyloxyalkanoyl residues. The compounds augment antibody production in immunized animals as well as stimulate cytokine production and activate macrophages. Methods for using the compounds as adjuvants and immunoeffectors are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216014-80-1P 216014-85-6P  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)  
 IT 216013-82-0P 216013-88-6P 216013-97-7P  
 216014-06-1P 216014-15-2P 216014-21-0P  
 216014-29-8P 216014-37-8P 216014-76-5P  
 216014-82-3P 339078-61-4P 339078-67-0P  
 339078-69-2P 339078-71-6P 339078-73-8P  
 339078-75-0P 339078-77-2P 339079-17-3P  
 367273-91-4P  
 (aminoalkyl glucosaminide phosphate compds. and their use as adjuvants and immunoeffectors)

L38 ANSWER 12 OF 12 USPAT2 on STN

AN 2002:149148 USPAT2  
 TI Prophylactic and therapeutic treatment of infectious and other diseases with mono- and disaccharide-based compounds

IN Persing, David H., Redmond, WA, United States  
 Crane, Richard Thomas, Hamilton, MT, United States  
 Elliott, Gary T., Stevensville, MT, United States  
 Ulrich, J. Terry, Corvallis, MT, United States  
 Lacy, Michael J., Hamilton, MT, United States  
 Johnson, David A., Hamilton, MT, United States  
 Baldridge, Jory R., Victor, MT, United States  
 Wang, Rong, Missoula, MT, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6800613 B2 20041005  
 AI US 2001-861466 20010518 (9)  
 PRAI US 2001-281567P 20010404 (60)  
 US 2000-205820P 20000519 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Wilson, James O.; Assistant Examiner: Maier, Leigh C.

LREP Townsend and Townsend and Crew LLP

CLMN Number of Claims: 53

ECL Exemplary Claim: 1

DRWN 25 Drawing Figure(s); 14 Drawing Page(s)

LN.CNT 1175.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compositions for treating or ameliorating diseases and other conditions, such as infectious diseases, autoimmune diseases and allergies are provided. The methods employ mono- and disaccharide-based compounds for selectively stimulating immune responses in animals and plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216013-82-0 216013-88-6 216013-97-7  
216014-15-2 216014-21-0 216014-29-8  
216014-37-8 376394-26-2

(prophylactic and therapeutic treatment of infectious and other  
diseases with mono- and disaccharide-based compds. in relation to  
toxicity)

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